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Coins, monetisation and re-use in medieval England and Wales: new interpretations made possible by the Portable Antiquities Scheme

Two volumes

Volume I

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Ph.D

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ABSTRACT

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Coins, monetisation and re-use in medieval England and Wales: new interpretations made possible by the Portable Antiquities Scheme

Coins are a vital source of evidence for many aspects of the medieval past. In this thesis a large volume of provenanced coin records collected and published online by the Portable Antiquities Scheme (PAS) are analysed to look for patterns of monetization and coin use in medieval England and Wales. While the approach used here will make full use of numismatic methods it also seeks to evolve an interdisciplinary perspective to the data. As well as providing the first national study of this kind the research also aims to draw out evidence for alternative, non-monetary uses of coins, including the adaption of coinage for other purposes, for example jewellery. Additionally the impact and various roles played by imported foreign coins will be assessed to provide a new perspective on England's links with its near Continental neighbours and beyond.

The results demonstrate a long and complex story of coin use and monetisation over the study period. The spread of coin use was intimately linked to coin production which was itself a geographically contingent phenomenon absorbing metals through trade with the Continent. Coin distributions were also subject to dynamics such as levels of population and other demographic factors. Foreign coins played an important role at times in English currency, if not always a welcome one. The political contacts of the English crown is borne out in the appearance of many imported coins but direct trading links, for example with Venice, mutually beneficial currency agreements, as arranged with the Burgundians in the fifteenth century, or coins as the simple souvenirs of pilgrims also played a part. By exploring the re-use of coins this thesis significantly expands current understandings of how medieval people viewed coinage and how they attributed new meanings to them.

Dedicated to my family

Jane, Ted and George

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CHAPTER ONE

INTRODUCTION

This thesis is a study of patterns of monetisation and coin use in England and Wales during the later Middle Ages between the mid-eleventh and the mid-sixteenth centuries. The primary evidence for the research is a significant volume of provenanced coin records collected and published online by the Portable Antiquities Scheme (hereafter PAS) between 1997 and 2008. While there are acknowledged difficulties in working with this dataset, the PAS corpus represents an enormous opportunity, one that is arguably unrivalled in the recent history of European medieval numismatics. In this thesis 500 years of later medieval coinage recorded by PAS are analysed in detail for the first time, the overall aim being to assess patterns of coin loss and to draw out evidence for the use of money, including the adaption of coinage for other purposes, for example jewellery. While the approach used here will make full use of numismatic methods it also seeks to evolve an explicitly archaeological and anthropological perspective to the data.

Research in medieval coinage

The traditional role of the numismatist in archaeology was for many years limited to a short descriptive contribution in a finds report for an excavation, the presumed dating precision of the coins acting to help establish chronologies suggested by ceramic and other dateable material. Over the past 30 years several numismatists, often those trained in archaeology, have attempted to engage their material specialism with archaeological methods. Rigold (1977), for example, developed systems of periodisation and analysis for excavated coins of the late Anglo-Saxon to Tudor periods, drawing inspiration from Roman scholarship, particularly Reece and Casey (1974; 1986). Indeed, this remains the only significant work of its type to date[1] in spite of the fact that 'coins and archaeology' was a theme sporadically visited by academic symposia in the 1970s and 80s (Casey and Reece 1977; revised 1988; Clarke and Schia 1989). While there were important contributions to the literature after 1970, namely Blackburn's paper on single finds (1989), the majority of

[1] See Blackburn 1989: 19 for some revision of Rigold's statistical data.

interdisciplinary studies of coins have focused on aspects of early medieval coinage (Richards *et al* 2009, Naylor 2007). The later Middle Ages figured only rarely in these symposia and there was notably little engagement with contemporary archaeological debates on method or theory. Of those that dealt with medieval coins, Archibald wrote on the dangers in assuming precise dates for their deposition (Archibald 1988); a theme recently revisited by Allen (2005b) using the weights of coins in hoards to estimate coin-survival rates over time. Other scholars meanwhile drew on Rigold's methods and data to test more recent groups of material but did not volunteer alternative methods of their own (for example Dyer 1997; Mayhew 2000; 2002). Elsewhere, scholarship on single finds – particularly in Scandinavia where theory has been integrated into archaeological dialogues (Gilchrist 2009: 388) – did see more developed conceptual discussions of 'monetary space' and the interrelation of numismatics, archaeology and history (*cf*. Kilger 2005; Kemmers and Myrberg 2011) but in Britain there was a continued reluctance to engage further. The main reason for this is probably the lack of relevant expertise in university departments, circumstances that are very different for Iron Age and Roman scholarship. For Iron Age see Haselgrove (1987; 1993), Creighton (2000; 2005); for Roman see Butcher (2003), Creighton (1992), Guest (2008), Lockyear (2000). Another contributing factor may be the archaeologists' perception of numismatics as a sub-discipline of history and as such something to be dealt with among historians or museum staff rather than as a one of a suite of archaeological artefacts from an excavated site. Although numismatists have occasionally addressed the meaning of archaeological coins (Blackburn 1989), the contrasting approaches of prehistorians and medievalists to their coinage is plainly obvious, for example in their approaches to artefact biographies (Gerrard 2007: 179). In Steane's *Archaeology of Medieval England and Wales*, a well regarded later medieval textbook, coins are discussed alongside heraldry, costume, armour and parish churches (Steane 1984: xv), while Platt's *Medieval England* limits discussion to Edward I's re-coinage and its impact on prices and inflation – the actual evidence of coin finds is absent (Platt 1978: 99-102). Historical studies are also guilty of marginalising the coin evidence (Bartlett 2002: 370-6) whereas early medieval archaeology embraces its potential more readily (Graham-Campbell 1982: 62-3, 130-1, 204-5), a consequence of the paucity of alternative

sources available. The fact that there are two exclusively numismatic journals – the *Numismatic Chronicle* (published by the Royal Numismatic Society) and the *British Numismatic Journal* (published by the British Numismatic Society) – only serves to further discourage any cross-fertilisation of scholarship.

The emergence of the 'single' find

Until quite recently British medieval numismatics and Roman, to a lesser degree, has focused primarily on hoard coins with occasional forays into the interpretation of single finds from excavated or metal-detected sites (see Allen 2002 for hoard references, Pestell 2005 for a recent targeted detector survey and Besly 1995, Cook 1998, Allen and Doolan 2002 and Kelleher and Leins 2006 for some key metal-detected assemblages). For the most part the numismatist works within an historical methodology and is concerned with what the coin evidence can disclose about such topics as dating, mint output, counterfeits and forgeries (Grierson 1975: 140-61). It might be said that the very nature of hoard deposition strongly supports a functionalist approach, whereas single, 'stray' or 'casual' finds are a more effective indicator of everyday transactions (Grierson 1975: 128-9; Rigold 1977: 59-60; Blackburn 1989: 15-19). The nature of accidental loss is such that, with some major caveats to be explored further in Chapter 2, it provides a non-biased sample that should represent a given coin 'population'. The problem, at least on archaeological sites of later medieval date in Britain, is that accidental losses are relatively scarce (*cf*. Grierson 1975: 136-8; Archibald 1988: 264), especially when compared with Roman sites, (for example Richborough in Kent yielded over 50,000 coins, Reece 1991: 27). Some examples taken from major urban sites investigated since the early 1960s are set out to illustrate this point (Figure 1.1). Against this background, the potential of a corpus of over 18,000 similar coin finds found in ploughsoil over the whole country may seem self-evident but there are many further advantages to this new dataset which go beyond the fundamentals of representivity, volume and national coverage. For example, the PAS data can help to redress the balance of rural/urban finds enabling the researcher to develop ideas about their interdependence and relative levels of wealth as well as improving our understanding of coin use among the medieval rural peasantry (Platt 1978; Dyer 1997;

Mayhew 2000). As numismatists our understanding of single coin finds has grown steadily more sophisticated, particularly with the increased availability of material made possible by the expansion of metal detecting as a hobby (Gregory and Rogerson 1984; Dobinson and Denison 1995; see articles in Thomas and Stone 2009) and by more recent attempts to make metal-detected material available for wider scrutiny on databases such as the Celtic Coin Index (CCI) at Oxford University, the Early Medieval Corpus at the Fitzwilliam Museum, Cambridge (EMC) and PAS (Naylor 2005 discusses using web-based corpora in research). Coins are by no means alone in receiving this kind of attention and publicity but they are well suited to further spatial and statistical analyses because of their relative abundance and the large number of collectors and enthusiasts who make coins their hobby. Estimating the number of active detectorists has proved problematic but was probably around 9,800 in 2012 (Robbins 2012: 84-5). Coin distributions can also be compared to other forms of medieval material culture and documentary evidence for comparative wealth or population levels (for example Sheail 1972, Darby *et al* 1979).

The coin sample

The primary data used in this thesis mostly derives from the PAS which maintains a database that covers both England and Wales and totals over 807,700 objects.[2] The PAS was formed in 1997 as a voluntary pilot scheme to record archaeological objects found by the public. By 2003 the Scheme achieved national coverage and today employs 39 Finds Liaison Officers (hereafter FLO) in museums and county councils across England and Wales.[3] Over 70,000 new objects are recorded each year with over 90% of discoveries made by metal-detector users (Robbins 2012: 2). Upon being recovered the majority of finds follow a set path which begins with reporting to the local FLO where the coin is deposited for a short time for recording. It is photographed, weighed and identified with all information recorded on the Scheme's database. Once recorded the coin is returned to the finder while the record awaits validation by the Scheme's specialist Finds Advisor, after which the record is made publically available through the PAS website.

[2] Correct at 24 August 2012. These are contained within 515,753 individual records
[3] Correct at August 2012. See www.finds.org.uk/contacts for the most recent listing.

The fields in the database fall into a number of broad categories; the first set of fields relates to the object details, with type, classification and description; the second concerns temporal data, detailing the production dates and any visible episodes of re-use; the next headings elucidate the dimensions, materials and decoration of the object. Information about the recorder, finder and circumstances of discovery follow, accompanied by any related SMR or museum reference numbers. The final fields place the coin spatially within its region, county and parish and provide a grid reference usually to six figures or more facilitating distribution mapping. When the data were downloaded (4th October 2008) the PAS contained 233,937 records, 63,300 of which were later medieval finds and 18,228 of these coins.[4] Additionally, a second dataset, the Early Medieval Corpus (EMC), was integrated into the main dataset for coins dating 1066-1180 to augment the small number of PAS finds from this formative period.

The downloaded PAS data was 'cleaned' to create a bespoke dataset removing irrelevant and extraneous fields (Figure 1.2). First the information was divided by county, then for a selection of counties each entry was checked against its online image. Thirteen counties were fully checked for accuracy in this way. Constraints on time meant that the remaining county records were only checked where errors were clearly present. The finds were then mapped spatially using the ESRI's Geographic Information System (GIS) software package ArcGIS 9.2.[5]

Other sources of numismatic evidence are also available and have been drawn on. This includes data (approximately 2,300 coins) collated from excavation publications found in regional and national journals as well as monographs, plus reports of hoards (495 hoards comprising hundreds of thousands of coins) and an additional *c.*50 objects that have been recorded through the Treasure Act 1996. Through this legislation it became a requirement that all finds covered by the Act are reported to the Coroner and although these finds often derive from metal-detecting they can sometimes bypass the usual process of

[4] There has been a 70% increase in the size of the database in the four years since this data was downloaded.

[5] See www.esri.com/ for details.

recording by a FLO and instead appear in the Treasure Annual Report (*TAR*). Single coins, however, would not normally be covered by the 1996 Act unless it can be proved that they were not used as currency; this is particularly the case with coin brooches, piedforts and any accreted groups of coins which are explored in Chapter 7.

Taken together, the PAS coin data for the later medieval period represents a unique European resource. No other country has datasets of similar size and chronological range, indeed most countries have no such recording schemes with metal-detecting tightly controlled. In most European countries detector-use is prohibited for non-archaeologists (Ireland, Italy, Greece and Spain) or licensed and not normally given to 'treasure hunters' (Austria, France and Germany), only in Denmark, Norway and Finland does legislation mirror that in England and Wales (Bland 1998). In particular, the locational data is a new resource for numismatists and one which provides additional opportunities for research. The majority of records include an image – a simple but essential aid considering the difficulties non-specialists encounter with the material – and represent a source unlike any other. The closest comparable recording schemes are in Denmark and some of the states in northern Germany, notably Schleswig-Holstein, although these records are not publically accessible. In France and the Netherlands many scholars work semi-officially or unofficially with detectorists to record their finds, but the state archaeologists frown on detecting.[6]

The study area

The sample area comprises England and Wales as this constitutes the extent of PAS and Treasure coverage. Throughout the thesis modern county boundaries are used in keeping with the structure of the PAS database. Scotland is excluded from the PAS because laws regarding archaeological objects differ significantly from England and Wales. There landowners do not possess rights of ownership over antiquities which must be reported to the state and are either acquired by museums or returned with a certification sheet transferring legal title to the finder (Bland 2008: 78; Saville 2008: 87-8). Coin finds from

[6] Roger Bland *pers. comm.*

Scotland are published in the *Proceedings of the Society of Antiquaries of Scotland* (*cf.* Bateson and Holmes 1997; 2003).

Period of study

The chronology chosen for analysis is 1066 to 1544. Although not definitive in terms of the administration of the coinage, 1066 provides a useful political start date, and one with a long tradition in academic research (Platt 1978), whereas 1544 is the terminal point marked by Henry VIII's debasement of the coinage (North 1991: 18). This drove most of the good silver out of circulation, either into hoards or into the melting pot. Finds from this *c.*500 year timescale will allow a diachronic analysis tracking changes in the economy in line with known developments in society.

While it is true that a number of recent PhD projects taking artefact categories of different periods have featured PAS material prominently, such as Iron Age coins (Leins 2012), Roman coins (Walton 2012) and other Roman objects (Brindle 2011),[7] as have a handful of academic investigations (Richards *et al* 2009; Garrow and Gosden 2012), it could be argued that later medieval material is especially well suited to further analysis. Finds-based PhD work on the medieval period has not been considered 'healthy' for many years in spite of the many advantages offered by a better documented period of the past. Indeed, the number of PhD and MPhil theses on later medieval topics over the last 40 years are fewer than prehistoric, Roman and early medieval projects and where later medieval subjects are tackled those addressing artefacts have had to jostle for position against landscape and scientific studies (Gerrard 2009: 86-7, 99-100). Sadly this pattern perpetuates among PAS projects despite the proven value such works can bring to wider scholarship;[8] Standley (2010), in her study of later medieval dress accessories, was able to exploit the links between artefacts and people and places to great effect.

[7] A list of current PhD research using PAS finds can be found at www.finds.org.uk/research/projects/index/level/3 .

[8] Just four (6.5%) of the 62 projects currently listed on the PAS concern later medieval subjects despite late medieval material accounting for over 21% of all finds. The others are: Mesolithic-Bronze Age (6); Iron Age (8); Roman (9); Early Medieval (20); Post Medieval (2); Multi-period or conceptual studies (14).

An ambition of this thesis is to test the finds data against what we know of the development of coin production and use throughout the period and where possible to see how use was affected or dictated by larger social or economic conditions. Figure 1.3 outlines some of the principal social and political events of the period against economic and monetary changes. However, attention might be drawn to several key developments, some of which had a direct effect on the production and consumption of coinage. In general terms conflict, both internal and international, is not visible in the English coinage however, the Civil War of Stephen's reign is an exception and will be subject to in depth analysis. Furthermore one of the overriding influences on mint production was the availability of silver and gold to strike into coins; historical narratives regarding fluctuating European silver supplies (Spufford 1988) undoubtedly affected minting and will be a key subject of discussion relative to coin finds. The last development of special interest concerns the changing levels of population relative to coin-use, most dramatically seen in the Black Death. There were however changes in the coinage itself (the restricted production of small change and the introduction of gold) which may have had as great an impact on the distribution of wealth and coin use as large scale depopulation.

Methodology

It is worth emphasising at the outset that the PAS represents a new source of data for the medieval numismatist, one that is not without its challenges. A key question for this thesis therefore has been to develop a methodology to assess the development, spread and use of money in the Middle Ages. To do so, it will introduce comparative evidence from excavations, hoards and documents. For the first time this thesis combines spatial and statistical analyses within a scheme of periodization developed for a later medieval dataset. The application of GIS to large numismatic datasets is in its infancy (Leins 2012; Walton 2012) and has yet to be applied to later medieval coins. This thesis will use GIS mapping software, utilising Kernel Density Estimation (KDE) to analyse densities and plot single finds against comparative spatial datasets such as topography, rivers or roads. This will be integrated with a range of basic methods of graphical representations with new ways sought to express complex numerical data.

Very few analytical or comparative methods have been applied to later medieval coinage. Rigold (1977) is the only work to have offered methods for analysing significant numbers of coins and this was developed for archaeological site finds rather than metal-detected objects. Haselgrove (1987) combined a large Iron Age dataset of excavated material, hoards and single finds to analyse coin distributions and in two separate studies Metcalf used regression analysis to identify the mint places of early Anglo-Saxon pennies and the dispersal of late Anglo-Saxon coins from their mints (1993-4; 1998). This thesis will advance these methods by integrating the large PAS single find corpus with other numismatic datasets in combination with the GIS and statistical approaches mentioned above.

Theoretical perspective

The nature of coin data is such that both processual (defined here as economic and scientific) and post-processual (social and theoretical) perspectives are often applicable to the material, an approach championed in this thesis. Synthesis of the large body of finds data will allow interrogation using statistical and spatial techniques – thus elucidating the use, spread, growth and contraction of coin use over time. These techniques have a long history in numismatics going back to the early work of the Romanists Reece and Casey (Reece 1974; Casey 1986). These approaches, while not new, have rarely been applied to post-Conquest material but have had a significant impact on the interpretation of coin finds in other periods. They are adopted here as they provide the best method for applying GIS technology to large sets of spatial data allowing a new perspective on distributional analyses to be developed. These methods offer a broad brush perspective on mints and circulation but do not address the individual. Absent is an appreciation of how coins were viewed in the lived worlds of their owners (and losers) and how they moulded social relationships within their spheres of use (Gerrard 2003: 223-4).

One of the aims of this thesis is to encourage interpretative or 'phenomenological' readings of coins. Interpretations of single objects have developed rapidly in

archaeological theory over the past 40 years, and of particular value is the object biographical approach. Developing object narratives by interpreting interactions between people and things has enabled new questions to be posed. Kopytoff asserted that biographies of things make salient what might otherwise remain obscure, such as how objects are culturally redefined within spheres of cultural contact (Kopytoff 1986: 67). Essentially this approach advocates charting the life of an object through its phases of existence, from its 'birth', through its 'life', and finally, to its 'death'. Although widely applied in prehistoric and anthropological scholarship (e.g. Gosden and Marshall 1999; Joy 2009), only rarely has such an approach been attempted for later medieval archaeology (*cf.* Gerrard 2007: 166-74) however, a number of recent papers have approached coins from an archaeological perspective (Kemmers and Myrberg 2011; Aarts 2005; Haselgrove and Krmnicek 2012). A second theoretical strand relevant in this thesis is the intentional breaking of objects. There has been a long tradition of study of this type of destructive act, particularly in prehistory, with recent work on fragmentation taking the subject to new levels (Chapman 2000; Chapman and Gaydarska 2007), but Roman and early medieval objects have also come in for consideration. In recent years later medieval material culture has begun to be addressed in a similar way (Merrifield 1987; Cherry 2001; Anderson 2010) outlining the potential scope of such an approach. The dataset contains within it a number of coins showing deliberate acts of mutilation which represent a completely new body of material for research.

Medievalists have traditionally been less ready to embrace new theoretical ideas than their prehistoric colleagues (Gerrard 2007: 179) but in the last 25 years scholars, often directly inspired by prehistoric theory, have begun to subject later material culture to new approaches concerned with agency and meaning (Gilchrist 2009: 385). Merrifield (1987) was an early proponent of looking at material culture from a religious or magical perspective and these themes have since been developed further (Gilchrist and Sloane 2005; Standley 2010). Especially notable in this context is Gilchrist's work on medieval magic, which takes archaeological objects and interprets them from an overtly post-processual perspective and includes some consideration of coins (Gilchrist 2008). Metal-

detected finds in the form of PAS and Treasure data are well suited to these approaches as a range of objects show traces of manipulation and adaptation for uses other than as currency, such as mounting as jewellery, piercing for suspension, folding and bending. The modes of transformation and their associated meanings are explored in detail in Chapter 7. This will include a consideration of heirlooms, the adaption into objects of jewellery or devotion (Cook 2008b; Williams 2001; 2006; Kelleher 2012), placement within the home and the wider landscape (Suchudolski 1996), their mutilation and their magical or apotropaic properties (Gilchrist 2008; Gilchrist and Sloane 2005; Travaini 2009).

The coin finds examined in this thesis are well suited to both functionalist and interpretive archaeological approaches. The value of this dual approach lies in the different sets of questions that each enables one to address. The broad-scale diachronic and spatial methodology will deliver interpretations which will significantly expand current ideas on the extent and nature of coin use in England and Wales and its change over time. Additionally, approaching coins as archaeological artefacts within the concept of object biographies will make a significant contribution to understanding coins and their different roles beyond currency, with an emphasis on the individual. The role of most coins was as monetary objects created with economic, political and hierarchically ascribed 'values'. Some acquired alternative identities and meanings through their conversion into new types of objects and through contacts with different people.

Research questions

This thesis sets out to answer four fundamental research questions.

1) To what extent does the PAS data support or contradict the traditional view of the development of medieval coinage?

Our interpretation of coin production and circulation is dependent upon the evidence of hoards and documents which do not provide a full geographical or chronological coverage and can be subject to significant biases. The PAS data provides an opportunity to integrate all types of coin data – hoards, single finds and excavations – with other sources of evidence, such as documents, to question how they reflect coin use on the ground.

Typological and denominational patterns will be analysed to provide the first national synthesis of coin-loss and to test previous assumptions about the broad development of later medieval coinage.

2) Does distribution tell us about monetisation and coin use or merely reflect where coins are found by metal-detectorists?

Unlike excavated objects metal-detected assemblages are subject to many layers of bias and distortion, from topography to land use to individual detectorists habits. These influences will be explored to ascertain the representativeness of the data. Spatial analysis with reference to the origin of the coins, distance travelled from the mint and observations of regional trends will enable a chronological exploration of coin-loss over time and also draw out the impact of sites in the landscape, such as towns, upon use of coinage. Supporting data from excavation and hoards helps to underpin the interpretive framework by introducing control groups for comparative analysis and the distributions will be tested against other forms of 'wealth mapping' such as those carried out using Domesday and the lay subsidy assessments.

3) What was the role of non-English coins in circulation and how did this change over the study period?

The dataset includes a significant number of imported coins from Europe and further afield. The key questions that will be addressed revolve around the conditions that encouraged or discouraged the movement of foreign coins into England and Wales. For example, were coins imported over the whole study period or were there fluctuations? How did the political climate influence their arrival and what measures were enacted in response to foreign coins? What impact did non-English coins have on the economy? It is recognised historically that some, like Islamic, French and Italian gold coins, functioned in lieu of an English equivalent, while others like the Venetian soldini served to fill gaps in the currency when mint production was at a low ebb. How did they enter the country and how were they used?

4) What non-monetary uses were medieval coins put to?

Some coins were converted into brooches, badges or dress fastenings, while others were pierced for suspension as an amulet, or folded or bent as the physical manifestation of a religious vow. These categories of coins are understudied and underappreciated by detectorists and numismatists alike. A key priority for this thesis therefore is to grasp how and when coins were 'manipulated' in this way and to investigate possible motives. This will necessarily take the thesis into new areas, combining original observation on the coins themselves with historical documentation and anthropological interpretation. Coins of the medieval period have yet to receive any serious attention under these criteria – this will be remedied here by a broad-based assessment of the methods of adaptation by comparing with contemporary jewellery (Lightbown 1992; Egan and Pritchard 2002) which emphasizes the 'why' as well as the 'how' and filters into debates on magic, display, pilgrimage and the body (Finucane 1977; Gilchrist 2008).

Structure of thesis

The four themes shape the structure of the thesis. It should be recognised at the outset that these are preliminary enquiries, further work as the PAS database continues to expand would be profitable. The thesis comprises eight chapters. Chapter 2 critically reviews previous methodological approaches to the interpretation of coin finds and introduces the methods used in the thesis. Chapters 3-5 present and analyse the data across three chronological periods charting the development of use of medieval coins through statistical and spatial analysis. Chapter 6 is an analysis of the incidence and patterns of non-English coin finds, while adapted coins are considered in Chapter 7 and are followed by the conclusions and suggestions for future work in Chapter 8.

CHAPTER TWO

METHODS: UNDERSTANDING AND INTERPRETING COIN FINDS

This chapter has two main sections, the first examines ways in which modelling the biographical life-path of coins can inform the ways we interpret finds evidence. Essentially this introduces the medieval coin as an *archaeological artefact* – as opposed to a purely numismatic one – by exposing the material to current theoretical developments in archaeology and material-culture studies. This is important in the context of this thesis because only with a critical understanding of the ways that coins were made and lost in the past, survived in the ground and are recovered in the present can successful methodological approaches to this data be devised. The second section introduces the methods to be used and the PAS dataset which is to be developed for analysis in Chapters 3 to 7.

The framework of primary, secondary, tertiary and quaternary context proposed for coinage by Kemmers and Myrberg (2011: 89-90) provides a useful starting point. Here, each 'context' stage corresponds to a pathway of 'life-stages' through which all archaeological material, including coins, must pass in order to come down to us for study. Figure 2.1 introduces some of the methodological and conceptual ideas which impact at each stage and are considered below.

Building on the structure proposed in Figure 2.1, Figure 2.2 introduces a new, more detailed model outlining the life of the coin from its creation to its recovery in the modern day. It proposes the stages in the life-cycle of a coin from the raw material gathered and wrought in its creation, through its phases of use, down to its deposition and finally its recovery as an archaeological artefact, essentially charting the stages of *birth → life (or lives) → death*. The model combines the life-history approach, which focuses on production, with the biographical approach which facilitates a more holistic appreciation of use(s) (including non-monetary) (Gosden and Marshall 2001; Joy 2009).

2.1 *Production (Primary context)*

2.1.1 Marking authority: dies (*Processes **[2]** and **[3]** Figure 2.3)*

Medieval coin dies were composites of iron and steel and rarely survive in the archaeological record.[9] Iron is found widely in Britain with medieval production centred on the Sussex Weald, south-west Yorkshire and the Forest of Dean (Rippon *et al* 2009: 35). London drew its iron from Wealden sources although for high quality products (presumably including dies) imports from Spain and the Baltic seem to have been favoured (Salzmann 1913: 25-6; Crossley 1981: 35; Cleere and Crossley 1995: 89; Rippon *et al* 2009: 36), for example in 1299 at Sandwich Peter de Sancto Petro of Bayonne imported 60 thousandweight of Spanish iron (Cleere and Crossley 1995: 103).

Blooms of iron were produced from iron ore in a smelting process that was heavily reliant on fuel; thus furnaces were often located close to source (Rippon *et al* 2009: 39), although excavations at Godmanchester (Cambs.) and Alston (Surrey) suggest that both smelting and refining could be carried out at the same site (Crossley 1981: 31). The stages of die manufacture are outlined in Figure 2.3 **[3]** and reveal a process dominated by the blacksmith but where the goldsmith undertook the skilled die-cutting work. Moneyers and goldsmiths may sometimes have shared workmen and combined the two roles (Stewart 1992: 71), indeed Henry III's goldsmith William of Gloucester was also a moneyer at London. The serjeantry of the dies became an office comparable in status to the safeguarding of the king's seal and, from the Conquest until 1376, was held by the Fitz-Ottos and their heirs until the position was absorbed by the warden of the mint towards the end of the fourteenth century (Mayhew 1992: 127, 155; Allen 2012a: 117-20).

Dies were usually centrally cut at London and distributed direct to the mints although on occasion disruption to this supply resulted in local production, as occurred on several occasions at Durham and elsewhere (Allen 2003: 21-2).[10] Once a die had ended its useful

[9] Iron dies are unlikely to be recovered by metal-detectorists as machines are calibrated to ignore signals from iron objects in favour of more 'attractive' non-ferrous metals. It is tempting to speculate, however, that there may be surviving iron dies in some urban contexts.

[10] In the absence of London-made dies locally-produced dies were required and these are made visible by their poor workmanship, as seen in York coins under Richard II (Stewartby 2009: 237-8).

life, disposal was a closely controlled process. The over 300 surviving dies come from material archived in the Public Record Office and British Museum while a small number were excavated. Quite why the dies should have been lost in these locations is debated. Excavated examples from Coppergate (York) and Thames Exchange (London) are thought to derive from die-making or die-cutting workshops close by; a die from Flaxengate (Lincoln) came from a tenement where minting may have taken place, similar to the small-scale premises documented at Winchester in the twelfth century. It is however possible that some of these dies represent scrap iron being made ready for recycling (Pirie 1986: 33-41; Archibald *et al* 1995: 198; Biddle 1976: 397-400; Blackburn and Mann 1995: 206).

2.1.2. From raw material to the purse: making blanks *(Processes* ***[1]*** *and* ***[4]*** *Figure 2.4)*

A new coin represents the culmination of two strands of activity which began with the mining and processing of the raw material; this was silver or gold in the blank production process **[1]**, and iron in the die-making process **[2]** (and 2.1.1, above). English (and Continental) mint output was constrained by the existing stock of coinage in circulation which could be augmented by new sources of bullion. However, as the relative availability of precious metal from European mines fluctuated, so did the level of production at the mint. The price competing mints were able to pay for silver dictated levels of production. Mines in central and eastern Europe provided the bulk of European silver, however, a great deal of this drained to the east through a negative balance of payments (Mayhew 1992: 130). From the twelfth century, mines in the Harz Mountains and Freiberg were producers but by the fourteenth century these were exhausted and new deposits in Bohemia, the Tirol, Tuscany and Sardinia were exploited until they in turn were worked out causing the silver 'famine' of the fifteenth century (Spufford 1988: 109-14).

Indigenous English silver was not unknown. The *Pipe Roll* for 1130 first mentions the *Minierie Argi* of Carlisle (near Alston) which, from 1158, is recorded as being 'farmed' continuously into the late twelfth century (Rippon *et al*, 2009: 48; Allen 2011; 2012a). The only other source of note could be found at Bere Ferrers (Devon) where production began under royal jurisdiction in around 1292. At its zenith this mine employed over 300 miners

and 100 ancillary workers and in the year to September 1297 supplied nearly 15% of silver minted at London (Rippon *et al*, 2009: 60). Gold was a separate consideration. Devon produced small amounts of gold in the fourteenth century and there was prospecting for gold in Gloucestershire, Somerset and Suffolk (Allen 2012a: 245) but these did not contribute in any significant way to the gold used when production began on a permanent basis in 1344. The gold entered the country in the form of French or Italian coins which were themselves made from Byzantine and Islamic coins struck from gold mined in east Africa. We shall return to gold coin imports in Chapter 6.

Silver extraction and processing occurred in five stages as outlined in Figure 2.4 **[1]**. The processing stages (smelting and refining) were heavily fuel-reliant, and necessarily located close to woodland (Rippon *et al* 2009: 105; Bond 2007: 277).[11] Royal forests and monastic houses were closely involved in the fuel and mining industries. Most silver used to make coins in England was in the form of older money or foreign coin drawn in principally from Flanders through the wool-trade, although silver plate was also sometimes used. Occasionally, freshly processed silver from Bere Ferrers came overland to be coined; wage rolls of 1304-5 reveal that an archer accompanied the silver while in 1306 a guard and an additional seven men were attached to the company (Rippon *et al* 2009: 94). Once safely in the mint the right alloy of silver and copper for the coinage was created **[4]**. Divisions of labour are revealed in mint documents which, in the time of Edward I and II, distinguish between the *operarii* – who prepared the blanks,[12] and the *monetarii* – who were responsible for the striking (Mate 1969: 213)[13]. The absence of any unstruck blanks in the archaeological record appears to confirm the strict supervision and security of the mint emphasised in documents of the time.

[11] The charcoal industry relied on a supply of wood, skilled workmen and a demand for their product as well as the more practical topographical considerations of a level, sheltered position close to a supply of water (Bond 2007: 281, 290).

[12] Fourteenth century documents show a further subdivision of labour of this type between cutters, sizers, melters and blanchers (Mayhew 1992: 159).

[13] Named moneyers did not actually strike coins but supervised the process ensuring weight and fineness (Mate 1969: 101).

2.1.3 Control and profit: the mint and exchange (process ***[5]***)

The mint and exchange (initially combined activities but later separated) were an important interface in the life cycle of a coin, as it moved from the creation process into the public domain. Overall, minting was an intermittent business with peaks in production that reflected sporadic changes in weight standard or even shifts in mint price. Over the period considered in this thesis (1066-1544) London came to dominate production and was the only mint to maintain a near-continuous output. Away from the capital – and prior to 1180 – mint premises were more likely to have been small-scale enterprises than large, industrial-scale production centres. Clues as to how twelfth century mints operated are revealed in the Winchester Surveys of *c.*1110 and 1148. These show moneyers working from small workshops (*forgia* or *fabrica*) along the High Street close to, but not within, the palace precinct. After 1180 the whole process was moved into a single dedicated structure – a pattern that is repeated across the country (Biddle 1976: 398-400; 422) – and this centralisation of minting, both in terms of creating a single mint premises in a town, and the subsequent reduction in the number of towns with a mint, was a feature of the centralising tendencies of the Angevin and Plantagenet dynasties.

Sets of dies consisted of a lower 'pile' which was fixed to a bench or anvil by the spike in its base (and would carry the obverse design of the coin), and a number of upper 'trussels' (which carried the reverse design).[14] Blanks were placed between the dies that were then struck with a hammer to impress the design.[15] A version of this process is depicted on a twelfth century stone carving on the church of St Georges de Bocherville in Normandy (Stewart 1992: 76). Estimates of die production can vary widely and are at best loose indicators of possible output. Scholars have debated this subject and it has been

[14] Trussels wore out at a higher rate than piles as they bore the impact of the hammer and so were provided in greater numbers. The survival rate of dies shows this discrepancy. Documentary evidence reveals that under Edward I and II the ratio of trussel to pile was 1:2, although 1:3 or even 1:4 are known at the Archbishop of York's mint (Mate 1969: 215).

[15] In the eleventh century a single blow from a 2½lb hammer was enough to produce the required results (Stewart 1992: 81). Double struck coins are rare before the thirteenth century but later coins often show double striking (eg. PAS: HAMP-F22451; HESH-229F31). 'Brockage' coins are those that are imperfectly struck and have either turned on the die between hammer blows and thus had obverse and reverse stamped on both sides, or have the impression of only one die; this occurs when the preceding coin in the production line becomes stuck to one die and shields the blank flan from the impact of one of the dies, usually the trussel (eg. GLO-EA2A77).

suggested that an average pile could strike around 30,000 coins before it became unusable, although 10,000 is suggested for the Norman period (Mate 1969: 215; Stewart 1992: 80). However, it is unsafe to suggest one 'average' number of coins per die in this period (Allen 2012a: 131-3). Surviving examples reveal that, once it became unusable, a die would be returned to the smith for refurbishment and re-engraving. A large batch of dies of Edward III survives which were lost or abandoned in the 1360s-70s. Four phases of recycling – characterised by successive reductions in the overall shaft-length of the dies – can be seen in the sample (Cook 2000: 228-9). Scientific analyses of two of the dies reveals a low hardness value consistent with their being in the process of refurbishment (Archibald *et al* 1995: 178).

2.1.3.1 Output and recoinage

Changes in currency renewal can be outlined briefly and will inform how the data is analysed (see Section 2.5 below). Between 1066 and 1158 'compulsory' recoinages at *c*.3-6 years intervals regularly refreshed the currency. William I maintained the Anglo-Saxon monetary system and, indeed, many of the personnel who were in post prior to 1066.[16] Doubtless, these changes were in part, if not wholly, motivated by financial gain. Domesday cites the *monetagium,* a charge levied when the old type was exchanged for new, and the proceeds of which went to the Crown. Consequently, old and foreign coins did not build up in the general currency. In 1158 Henry II introduced the Cross-and-crosslets coinage which was initially struck at 29 mints although this was reduced down to 15 by *c.*1174-80 as production was centralised under royal control and minting limited to fewer locations (Allen 2012a: 41-3).[17] In this system there was no obligation to change existing money and so an 1158 penny could (and did) circulate up to the introduction of the Short Cross coinage (for example 15% of the Gayton hoard, deposited in *c.*1180 were Class A coins, Crafter, *pers. comm*.). The greater availability of silver from European mines in the twelfth century ensured that the Short Cross currency was produced on an entirely different scale to anything hitherto seen. In both the Short Cross coinage and the Long

[16] The London moneyer Deorman and his successors are known to have struck coins from the reign of Aethelred II to Stephen (Nightingale 1982).

[17] Mayhew proposes that Henry II abandoned frequent recoinages in order to undermine the profitability of local mints (Mayhew 1992: 88) and thus advance royal control over the process.

Cross (1247-1279) which replaced it, coins were similarly long-lived and the number of mints stood at just four by the final Long Cross class in 1279.[18] At this date a major coinage reform radically transformed the style, volume and composition of English currency. Moneyers' names were no longer included on the coins and a range of new denominations appeared; groats and farthings in 1279, halfpennies in 1280, gold nobles (and their halves and quarters) in 1344 and groats (permanently) and half-groats in 1351. This eight-denomination 'set' would remain the standard for most of the medieval period.

From 1279-1344 London and Canterbury produced the majority of English coins with other mints operating only for recoinages.[19] After this date London, Durham and York featured most often, with London increasingly monopolising production and the northern mints striking only pennies - all this set against the backdrop of a diminishing supply of silver as mines became worked out. Edward III's 'star-marked' coinage of 1335-44 was very slightly debased and intended for domestic use only, whilst in 1363-1403/4 and 1422-*c*.50 overseas expansion saw a mint at Calais converting the profit of the Staple's wool trade into English coins; first gold and later silver (Allen 2010: 131) with output sometimes equalling that for London (Mayhew 1992: 150). However, the biggest legacy of the 1279 system was that it effectively continued unaltered until Henry VIII's debasement from 1542-4 drove good quality silver out of circulation. Over this long period there were no recoinages other than a partial one in 1299-1300 designed to remove the large numbers of imitation sterlings circulating from the Low Countries (discussed in Chapter 6), otherwise new coins continued to be added into the existing currency. It would seem that progressive weight reductions in the issues of 1351, 1412 and 1464-5 forced people to evaluate their pre-existing coins and clip them to parity, but there was no obligation for

[18] The Long Cross was financed by Henry III's brother Richard of Cornwall. This almost entirely replaced the Short Cross coinage. London, Canterbury and Bury St Edmunds began the recoinage. In *c*.1248, Norwich, Northampton, Exeter, Winchester and Lincoln established mints and exchanges. A second group – Wallingford, Bristol, Ilchester, Hereford, Newcastle, Nottingham (known only from documentary evidence), Carlisle, Shrewsbury and Wilton produced in early 1249 (class 3) and closed in 1250.

[19] Two ecclesiastical privilege mints operated at Bury St Edmunds and Durham under Edward I and II. A mint for the Abbot of Reading was active 1338-51 producing pennies and halfpence.

coins to be exchanged at the mint as is illustrated by the presence of Edward I pennies in hoards at least as late as *c*.1487.[20]

2.1.3.2 Image and word

Imagery on coinage was a powerful tool for conveying a range of messages via a fairly ubiquitous medium (Kemmers and Myrberg 2011: 92). However, the coinage of later medieval England has received relatively little scholarly attention, presumably because of the unchanging nature of post-1279 silver coins. Nevertheless, it might be conjectured that medieval kings used coin-imagery actively to convey key messages about the interrelated roles of king, state and church. Furthermore, through different denominations, these messages could be addressed at different levels within the medieval social hierarchy. As we shall see in Chapter 7, it was specifically the imagery on coins which caused some to be re-used in ways unintended by their original 'designer'.

From 1066-1544 pennies generally depicted a crowned, clean-shaven, stylised facing or profile bust of the king with a surrounding identifying inscription, while the reverse (usually) bore a cross-motif surrounded by an inscription identifying its place of origin and (until 1279) the official responsible for its manufacture. When smaller and larger silver denominations appeared they closely followed this template but for gold coins the iconography was elevated to a new level. The nobles (1344-1464) carried an armed figure of the king in a ship (a motif perhaps commemorating the naval victory at Sluis in 1340; North 1991: 14), an ancient representation of the king as captain of the ship of state, while the angels (from 1465) depicted St Michael slaying the dragon. It is possible that the image was intended to indicate a new dispensation under the Yorkists with the archangel expelling the devil. The different imagery on silver and gold coins could be a comment on the audiences that engaged with these objects in everyday life. The silver coins would have probably been the only occasion ordinary people would have encountered an image of their monarch and could have evoked feelings of reverence of kingship and one's place within the social order of the kingdom. It was not necessary to be able to read the

[20] The Ryther hoard (N. Yorks.) included 26 pennies of Edward I and II among its 817 pennies, groats and half-groats (Barclay 1995: 140-50).

inscription to know they were gazing upon their king. Gold coin was treated differently – the mere value would have restricted the user-base and this seems to be mirrored in the images and text on display. The martial characteristics of the English gold, for example, differ from the representations on French gold coins, which refer rather to the sacred kingly role, or from Florentine florins that depicted a figure of John the Baptist. In ancient Greece gold was associated with religious authority and aristocrats and symbolically opposed to silver coins which were for city and trade (Kemmers and Myrberg 2011: 95). It seems possible that a similar set of values were used on the English gold coins to link military prowess with piety.

2.1.4 Coins enter currency

The final stage of mint involvement saw new coins enter circulation in exchange for old or foreign coins or bullion. This represents the interface between the production and consumption parts of the model in Figure 2.1, each of which feeds – or at least provides the material for – the other. The year 1180 marked an important cut-off point in the management of this process, prior to 1180 the moneyers were responsible for minting *and* exchanging coins, but with the Short Cross recoinage the two offices were separated and royal changers set up across the country to administer exchange on behalf of the king (Allen 2012a: 49; Stewart 1992: 73; Mayhew 1992: 93).

*2.2. Moving money: coins in economy and society (Secondary context; process **[6]**)*

It is difficult to argue that the *main* function of coins in past societies was anything other than as a means of payment; coins were almost always created for this purpose. However, coins could also operate *outside* of currency and this section sets out two ways in which coins are understood and addressed within this thesis, as money and 'non-money'.

2.2.1 Traditional value: circulation

A key aspect of the value of coins is their potential use among a wide cross-section of the social classes of past societies. This ubiquity means that finds from different site-types or between regions can be compared and contrasted. Reconstructing the circulating coinage,

however, relies heavily on the evidence from hoards and site-finds which does not necessarily represent the past coin population fully. Unlike artefacts like ceramics, most coins were recycled back into the system which created them to become new objects which may in turn have embodied, in a symbolic or social sense, the idea of renewal. The circulation pool is often talked about as an abstract entity and its physical manifestation difficult to define. Figure 2.5 sets out the nature of the circulating coinage through temporal, physical and intentional or functional role.

Obviously, it was never the case that everyone had equal access to the entire range of the currency as it existed at any particular point in time. Some coins moved among people and places at high velocity while others remained static. In some places coins would have been scarce or encountered at particular times of the year, such as the harvest, while conversely in large towns and cities and among the merchant class they would be everyday objects. Coins were in houses, in purses, in the marketplace, in the church or in the ground, and at times were seen as money, as jewellery or as representing a transaction between the owner and God and throughout their lives could transition between these roles. Through a range of methods it is possible to explore our understanding of the relationship between coin-use and coin-loss and start to flesh the bones of medieval currency use at a national, regional and local level and provide a contrastive dataset to set against hoard data and the plentiful documentary references which appear from the thirteenth century.

2.2.2 New meanings: reuse of coins

The act of reusing objects for purposes other than that for which they were made is a common human practice. For medieval coins this is observable in two non-exclusive archaeological forms – one is visible through physical changes made to the object itself while the other derives from the archaeological interpretation of the object's find-spot and context. This subject is more fully explored in Chapter 7 but a brief overview of the categories of re-used coins encountered in the dataset is necessary here. Three broad groups are visible (Figure 2.6) and discussed below.

2.2.2.1 Adapted coins

Adapted coins are those that, through visible physical alteration, move out of the monetary system. Some were used as the basis for a brooch or dress fastening, others as pendants, while a number show folding consistent with performance as part of a vow. These transformative acts were not always permanent as occasionally we have finds, from the early Anglo-Saxon period and the English Civil War, that show use in a non-monetary context but which have later re-entered the currency. It is also the case that coins were chosen to be adapted *because* they were coins, in other words the message (authority/personal), imagery, material or another factor marked out the object for treatment in a particular way. Sometimes they were just discs of the right size, as in a hoard of Polish coins used as washers (Suchodolski 1996); while in others the adaption was contingent upon iconography, like the mid-seventeenth century royalist sympathy which focussed on Charles I's portrait. Adapted coins *may* still be lost in the same way as the coins discussed above, but as non-coin objects they assumed a different set of values to those originally intended and this will have affected the meanings attached to them and therefore their mode of deposition.

2.2.2.2 Special placement of coins

The placement of an object, as an act of permanent deposition in a 'structured' deposit, has long been recognised as a feature of settlement archaeology of the later prehistoric, Roman, and more recently Anglo-Saxon periods (Hamerow 2006). European medieval scholars have identified coins from shipwrecks, such as a *petit blanc* between the keel and the stempost of the Newport ship built in France *c*.1446 (Figure 2.7), from Christian cemeteries in Italy and Britain (Travaini 2004; Gilchrist and Sloane 2005; Gilchrist 2008) and in hearths and house foundations in Poland (Suchodolski 1996). One recent study of metal-detected medieval ampullae in Britain concluded that medieval ampullae were associated with rural communities who had deposited them as ritual objects and often in mutilated forms - perhaps to ensure a good harvest or to cure sickness or failing crops (Anderson 2010: 183, 200). Could similar motivations have been applied to coins? For the

most part little consideration has been given to the circumstances of loss, the implicit assumption being that objects were lost accidentally.

2.2.2.3 Coins as heirlooms or 'found' objects

Recent research has identified medieval contexts that suggest antique finds could be accorded special significance. It has been proposed that the post-medieval tradition of keeping prehistoric flint arrowheads, called 'elf shots' or 'fairy darts', as protective amulets had a medieval origin (Standley 2011: 152-3; Gazin-Schwartz 2001). The most clear-cut evidence comes from funerary contexts, particularly Anglo-Saxon, from which Roman and Iron Age coins have come. Roman coins have also been recovered from medieval burials, with particular associations with children (Gilchrist and Sloane 2005: 79, 101; Gilchrist 2008: 142) as well as being found among a wider selection of re-used Roman artefacts in later medieval contexts at Shapwick (Somerset, Gerrard with Aston 2007).

2.3 Depositional processes (tertiary context, process [7])

Figure 2.8 identifies the four principal ways in which coins are assumed to have been deposited in the past. Hoards and single finds of all periods have provided numismatists and archaeologists with enough data to reconstruct circulation and economy at the macro- and micro-scale, but an understanding of how and why the types of evidence were formed is essential in making sense of this data. The circumstances of deposition greatly influence how the archaeological record was formed and therefore the questions they are able to answer; these are expanded below.

2.3.1 'Buried treasure': hoards

Amassing and storing groups of coins in hoards is a practice common to most coin-using societies and one which permeates social boundaries. Hoards are therefore a key source for numismatists when reconstructing currency and developments in coin-production although hoard coins do show selectivity and therefore may not be fully representative of money in circulation (Blackburn 2003: 22). Some extreme examples illustrate this point; the massive Colchester (Essex) hoard comprised over 14,000 mid-thirteenth-century silver

pennies in two large batches laid aside from currency at least 12 years apart, the latter batch consisted of uncirculated die-duplicates from a rare class and minor mint. They were likely the property of two Jewish financiers (Archibald and Cook 2000: 94-5). Meanwhile the Tutbury hoard was lost when Edward II's forces took the castle there in 1322 and was partially recovered from the bed of the River Dove in 1831 (Kelleher and Williams 2011)[21]. Conversely, much smaller groups like the five Short Cross pennies excavated at Wolvesey Palace (Winchester) can potentially allow a glimpse of material relating to everyday currency – although in this particular case access to the palace would have been required to secrete the stash – which rules out most of the ordinary folk of Winchester. Although the size of these coin groups varies greatly, the reason for their burial is potentially the same, the difference being in the relative wealth of the individuals involved. Most hoards buried in the past would have been recovered so the observable pattern is dictated by the circumstances that led to non-recovery, perhaps accident or death (Metcalf 1998: 31; Blackburn 2003: 20-1). Unsurprisingly, the classic hoard patterns are those clustered on the south coast of England dated *c*.1066 and the Edwardian hoards in northern England/southern Scotland from the time of the Scottish Wars. Among the weaknesses in hoard interpretation (particularly for the medieval period) are the unsatisfactory taphonomic divisions proposed (see 2.4.3) and the lack of any explanation for hoarding other than the hiding of wealth to be recovered at a later date (but see Myrberg 2009; Van Vilsteren 2000). Alternative motivations for depositing both hoards and single finds are explored further in Chapters 3 and 5.2.

2.3.2 Purse accidentally lost or buried

This category covers groups of coins kept in a purse, pouch or small bag and usually worn about the person – either at the waist (on a belt) or slung across the chest. Coins carried in

[21] This hoard has been cited as by far the largest ever recorded, consisting of an estimated *c*.360,000 Edwardian pennies and identified as the war-chest of Thomas of Lancaster. Accounts of the loss of the coins vary, one suggests that barrels of coins were accidentally lost in the flooded River Dove during the flight from the castle, while another indicates that the coins were buried at the time and the course of the river shifted to reveal the barrels. Hoards of the super-rich, like Tutbury and the later gold Fishpool find are very rare belonging to the social group least likely to deposit coins in the ground, except under highly exceptional circumstances.

this way are susceptible to theft and loss and are likely to reflect 'everyday' currency if buried with the body. However, not all small groups were accidental losses, they may just as easily represent small hoards secreted by people of more modest means than Samuel and Ioce, the Jewish financiers identified as the owners of the Colchester hoard (Archibald and Cook 2001). The purse explanation is often inferred from the size of hoard and the lack of any evidence for a container but Cook has recently argued that the term is misleading and should be abandoned (Cook forthcoming). Other evidence for unintentional deposition comes from funerary contexts. Two excavated skeletons from the East Smithfield Black Death cemetery were interred – probably through hasty burial – with purses still on the body (Gilchrist and Sloane 2005; Grainger *et al* 2008; Cook 2008a; Gilchrist 2008) while the famous Avebury 'barber-surgeon' discovered under one of the sarsens in Keiller's excavations, had on his person three fourteenth-century pennies.[22] Other examples include the group of pennies secreted in the armpit of an executed Anglo-Saxon man from Stockbridge Down (Hants, Dolley 1955b), a probable case of a corpse not accorded proper preparation for burial.

2.3.3 Coin(s) deliberately deposited or discarded

Two types of intentional deposition of coins can be identified. The first involves deliberate rejection (i.e. discard) from currency, something which is considered rare (Blackburn 1989: 17). This may have occurred if, for example, being in possession of a particular coin put an individual in contravention of the law. Holding forged or imitative coins, could, at various times, by punished by the loss of a hand, castration or even execution (Cook 2001a: 54-5), while possessing clipped coins often resulted in a hefty fine (Cook 2001a: 63-6). Both would have been strong motivators for discarding a particular coin. Another scenario could be that a coin was no longer current and thrown away, however, as the English coinage consisted of good silver and gold, the bullion value alone should preclude against this. Foreign base-silver or copper coins, with no obvious role in currency, are more likely to have been deliberately discarded.

[22] Recent interpretation suggests he may been a tailor rather than a barber-surgeon.

The second type of intentional deposition are coins that have been specially placed. Nowhere in the large literature on the subject is a distinction drawn between coin finds as utilitarian, economic objects and religious or ceremonial – in other words with inherent special or ritual significance. Ritual is explained by anthropologists and sociologists as a means by which communities define, cement and justify social relations (Gazin-Schwartz 2001: 273) and for medieval coinage there are a number of indicators that suggest ritual deposition in specific situations. Folding coins as part of a vow is one of these, recovery from a special context is another. When interpretations depend so heavily on place of deposition it remains curious that only coins found in medieval graves are ever considered part of the funerary rite or other quasi-religious ceremony – and then, not consistently. A small number of coins excavated from defined contexts provide an untapped corpus for interpretative work, some of which will be considered later in this thesis (Chapter 7).

2.3.4 Coins lost accidentally

Most excavated site-finds and metal-detector coins are assumed to be accidental losses and thus a random sample of the coins in circulation at a specific time and place (Blackburn 2003: 23). These losses occurred during the movement of coins from one place to another and, for whatever reason, were never recovered. The weight of scholarship suggests that this is the principal means by which coins have come down to us, but this standpoint requires some dissection. The key questions for understanding loss levels are:

1) *What was the volume of coin in circulation and who had access to it?* Over time, loss should be proportionate to the volume of coinage available. It is also important to stress that access to money, participation in a monetary economy – will have a bearing on just which money-users we are viewing through the finds. Contra to earlier assumptions, coins circulated in rural domestic contexts in some numbers (Dyer 1997) with an estimated 30,000 pennies passing through a typical village every year (Mayhew 2002: 17).
2) *How was the coin being used when lost?* Use clearly influences patterns of loss so in many ways the level or 'velocity' of coin use should be reflected in the finds. The

most obvious opportunities for loss were during a transaction (eg. the buying and selling of goods and services) or when offerings were made in churches or shrines.

3) *Where was it lost?* A number of mitigating factors come into play when considering location of loss. A public space, such as a marketplace, would provide more obstacles to recovery than, say, a domestic setting (Blackburn 1989: 17). Occasional outdoor events such as markets and fairs could be sited on pasture or meadow, where dropped objects might be difficult to see if they are trodden into the soil. Interior flooring might be thought to aid recovery, for example on stone or clay surfaces coins could be more easily seen, but they could also fall through the cracks in a wooden floor as did three fifteenth-sixteenth century coins excavated from under the choir stalls at Guildford and Coventry (Archibald unpublished; Woodfield 2005). Moreover, floor coverings such as rushes, straw or sand would impede recovery (Keene 1982: 27; Blackburn 1989: 17). Individual households doubtless varied; whereas Erasmus was disgusted by the accumulation of filth in English houses, another sixteenth century visitor noted the *'neatness of English houses with their chambers and parlours strawed over with sweete herbes'* (Keene 1982: 27). A final important variable would be light levels. This would be particularly poor in domestic peasant dwellings where both natural and candlelight would be limited.
4) Value is a subjective concept but the size and denomination of a coin will be considerations; smaller objects are more easily lost and less easily seen (Blackburn 1989: 17; Mayhew 2002: 6). The value of the coin will also dictate the time spent in searching for it, as will the relative wealth of its loser.

2.3.5 Manuring and rubbish disposal – domestic

Modern arable fields provide a wealth of find evidence. Single finds are assumed to be present in modern fields due to their accidental incorporation into manure or rubbish from local households. Thus a coin accidentally dropped in the home (or yard) might be swept up with floor-covering material and deposited on the manure heap with other farmyard detritus and later ploughed into the owner's arable plot (Metcalf 1998: 14;

Mayhew 2002: 17), an approach actively encouraged in a medieval treatise on soil improvement by Walter of Henley (Gerrard with Aston 2007: 156). Excavated evidence from villages like Wharram Percy (Yorks.) bears this out. One particular peasant house was swept so thoroughly that over time the floor surface became dished (Bond 2000: 22-5). This sequence of events carries with it a number of assumptions requiring clarification.

It should not be assumed that refuse deposition followed a standardised pattern across England and Wales over time. Some French finds show concentrations either at the village margins in specially dug ditches or on cultivated fields as manure (Suchodolski 1996: 319), while fieldwalking surveys in Somerset and County Durham provide good evidence for contrasting rubbish disposal regimes. At Shapwick (Somerset) dense scatters of material on arable fields close to the centre of the village are interpreted as manuring remains ploughed into the topsoil which generate a halo-effect around the settlement (Gerrard with Aston 2007: 156), while in County Durham it seems that domestic waste was disposed of in pits rather than as manure (Haselgrove *et al* 1988). This discrepancy could potentially impact PAS coin distributions regionally.

Urban disposal of medieval waste was considered by contemporaries to be problematic. One solution was off-site deposition in the fields surrounding the town, another to infill deep holes (Evans 2010: 269). The development of modern towns has invariably encroached upon what would have been the local fields used for any such waste deposition. However, coin-rich waste deposits are known from a number of London sites – particularly Seal House, Swan Lane, Billingsgate and Vintry (Vince 1985: 48; Kelleher and Leins 2007) – which were reclaimed from the Thames by revetments backfilled with the city's waste (Stott 1991; Schofield and Maloney 1998). Significant urban assemblages away from London include excavations in the commercial zones of the town (i.e. Coppergate in York, Flaxengate in Lincoln, Southampton). The presence of coin finds on modern arable is also explained through itinerant or seasonal activities (such as markets

or fairs) which are often not obvious through archaeology, or the disturbance of underlying archaeological horizons through deep ploughing.[23]

2.4 The archaeological record *(Quaternary context, Process [8])*

Although single coins are sometimes recovered by fieldwalkers and by other interested members of the public during, for example, building work, most finds of coins are made by archaeological excavators or by metal detectorists (Figure 2.9). By examining the number of coins recorded year-on-year by PAS since 2001 we can chart the steady growth in the volume of finds (Figures 2.10 and 2.11). It is clear from this exercise that the revision of the Treasure Act and establishment of the PAS itself have been instrumental in the national growth of recording of single finds and the proper reporting of all hoards, regardless of their size. The PAS provides the vast majority of single finds (17,437) used in this thesis, over 99% of which were recovered by metal-detector.

As Figure 2.12 makes clear, recovery of coins is subject to myriad biases. In the case of metal-detecting, for example, detectorists generally do not practice systematic recovery methods. Visible clusters of material on a distribution map might therefore reflect hours spent detecting rather than any specific archaeological phenomenon. Second, there are constraints on access to land such as urban sprawl, highlands, MoD land, National Trust, the Duchies of Cornwall and Lancaster or other private or protected land (Richards *et al* 2009; Robbins 2012). The geography of metal detecting is also relevant and in particular the spatial relationship between detectorists' home towns, arable farmland and the road arteries. In most PAS finds distributions the position of the A1 is clearly visible suggesting preferential searching on fields close to accessible road networks. Other biases on the information recorded may include accuracy of the finds identification by the FLO, or the degradation of metallic artefacts (Haldenby and Richards 2010: 1160 for copper-alloy). Chemical attrition has been cited as especially damaging to coins (Oxford Archaeology 2002: 7)[24] but this has been inadequately explored. Likewise, while the interpretation of

[23] This latter is seen as a particularly acute problem for Anglo-Saxon cemeteries (Chester-Kadwell 2009).
[24] The report does not distinguish between coins of different types – either chronologically or by metal. I presume that Roman base-metal coins would be most susceptible to this form of chemical attack.

lithic and pottery scatters is commonplace in the archaeological literature, issues of post-depositional movement of coins in the ploughzone has hardly been considered (Chester-Kadwell 2009: 65). Given the minimal locational precision of coin finds this is perhaps unsurprising, though much can be done to improve the quality of the dataset by adding negative evidence (ie. by indicating where searches have been made and no artefacts have been recovered). At a broader scale, this thesis makes use of a background density map of all finds from PAS as a point of comparison for national distributions. At the very least this should highlight the most visible anomalies.

In fact, all forms of archaeological recording have their biases. Excavations, for example, also produce coins as single finds and occasionally in hoards, and these are regarded by archaeologists as useful dating tools.[25] They have the advantage of being linked to a place and often a particular archaeological or historical context. Unlike Roman coins, later medieval coins are not as ubiquitous and most sites (where coins are present at all) include small numbers.[26] This is partly due to recovery techniques; the use of metal-detectors on spoil and on features is something that has only recently found acceptance among archaeologists.[27] In most cases, however, excavation coins can only be regarded as a sample; layers may have been disturbed or destroyed by later activity, while some sites may over-represent coins of a particular period if there has been construction or demolition works. Thus, for example, at Castle Acre, Norfolk the 11 coins of Stephen from a total of 15 are associated with the construction of the castle (Rigold 1977: 67). Excavated areas may also vary hugely in area and depth; urban deposits can be metres thick, rural sites a matter of inches.

[25] The tight chronological classification for the English medieval coinage can usually provide a production date to within a one to ten year range but this masks the fact that deposition dates for particular coinages can be much extended beyond their date of striking (Archibald 1988: 264-301).

[26] Figures derived from Stuart Rigold's 1977 survey of sites under the Ministry of Works jurisdiction bears this out; of his 100 sites 71 produced 1-5 coins; 18 produced 6-10; 7 produced 11-20; 4 produced 21-50; and 1 produced 50+ coins (Rigold 1977: 70-8), and these larger groups came predominantly from urban sites.

[27] For example the VASLE project used metal-detector surveys on sites at Cottam (Richards *et al* 2009); Commercial units have also incorporated metal-detecting as a field tool, although in many cases this was to recover material that might otherwise have been lost to nighthawks. Wessex Archaeology projects at Springhead (Kent, Andrews *et al* 2011) and Heathrow Terminal 5 (Framework Archaeology 2010) are two such projects known to me; similar methods were employed by the Milton Keynes Archaeology Unit for their excavations at Tattenhoe and Westbury-by-Shenley (Ivens *et al* 1995).

Coin hoards too fail to provide full geographical or chronological coverage (Blackburn 2003: 23). As we saw above, hoards could be formed under a range of conditions, some as long-term savings, others more hastily accumulated, and this has led to attempts to create hoard typologies (Grierson 1975; Blackburn 2003). A recent attempt categorised hoards as currency, savings, double-peaked or grave deposits (Blackburn 2003). In some cases it is clear that batches of coin from the local mint were added to existing caches, such as the Shrewsbury specimens in the Baschurch (Salop.) hoard (Cook 2007: 199). Profiles of contemporary hoards can vary as can the containers used (often ceramic, sometimes lead or textile), other objects – such as jewellery (two gold rings were in the mid-fifteenth century hoard from Stoke Holy Cross, Norfolk) or seal matrices (such as the Thwaite, Suffolk hoard of the 1260s) – are sometimes included. All these elements combine when reconstructing currency for an individual at a particular time and place, sometimes revealing who the hoarder was, how long the hoard took to assemble and for what purpose. While it is clear that hoards were formed under different conditions the limitations of typologies have been highlighted (Kent 1974; Reece 1987) and, as such, intentional and unintentional hoards or purses are classed together at this stage of the model. The unsatisfactory chronological coverage (for example hoards dated to the early twelfth century, the 1280s, 1400-1425 and early sixteenth century are rare)[28] and the fact that the hoards were put together under a range of possibly unknowable conditions, should not take away from their importance.

2.5 Data and methodology

Having established the nature of coin production and loss (Figure 2.2) I now turn to the data itself. The PAS material used in this thesis initially numbered over 18,000, but after cleaning, which removed obviously faulty identifications, the total count was 17,437.[29]

[28] The impact of increased reporting of small hoards is beginning to make an impact in these areas (Cook, *pers. comm.*), however, the fact remains that very large hoards which could provide new perspectives on the monetary economy at these times have yet to be found, if indeed, they are in existence.

[29] The search fields for the download were object 'coin', production date '1066-1544'. This data was downloaded as a CSV file on 4th October 2008. Since this date the PAS database has been revamped and an unknown number of records originally downloaded are no longer recognised.

Dividing the data by county (Figure 2.13) indicates rapidly where coins are being found. The eastern counties dominate, led by Suffolk and Norfolk and with the first four having over 1000 finds each, North Yorkshire is ranked eighth, and Essex, surprisingly given the intensity of detecting coverage, lies thirteenth. County Durham and Northumberland do not display the level of finds recording of their southern east-coast neighbours. In part, the numbers are boosted in those counties which formed part of the PAS pilot scheme while in other cases there is a longer tradition of collecting and reporting. Plotting the same finds against county size immediately reveals some interesting discrepancies (Figure 2.14), most obviously the primacy of the Isle of Wight, the product of an effective relationship between the FLO and most practicing detectorists on the island. Many of those counties with high overall finds numbers also record a high density of finds per mile however the biggest discrepancies can be seen in the largest counties like Lincolnshire.

2.5.1 Managing the data: Periodisation and regions

To divide the PAS finds into a workable chronology, a refined version of the framework proposed by Rigold (1977) is implemented here, albeit across a slightly shorter chronology (Figure 2.15). Rigold's divisions in his first three phases are arbitrary and do not correspond particularly with any known phenomena displayed in the finds record (such as the composition of surviving hoards). Especially notable was his 'Period III' grouping of late Henry I, Stephen and the *Cross-and-Crosslets* coinage, the latter of these should certainly be in a group in its own right as Henry II's new coinage was in design, if not in practise, a distinct and closed system brought in to remove the currency of Stephen.[30] Otherwise, the period divisions (hereafter P) follow those used by Rigold for his later phases, being dictated by either a comprehensive national recoinage (PV and VI) or by a weight reduction which, without replacing the existing currency entirely, forced what was circulating to be clipped down to conform to the weight of the new issue (PVII-X). The terminus for PX is 1544, the date of Henry VIII's third notoriously debased coinage. This effectively enacted Gresham's Law in which bad money drives out the good (Simpson

[30] During the civil war period the coinage had become increasingly chaotic, although the final type VII (Awbridge) coins were themselves an attempt within the reign to replace the various issues then circulating.

1993: 10), removing the silver coins which had, up to that point, been of a consistently good alloy.[31]

Phase A. 1066-1158 (PI-III) *Renovatio* system

The Norman coinage continued the late Anglo-Saxon tradition of changing designs at regular intervals and this ensured that the majority of coins had only a limited period of currency, normally *c.*3-6 years. This meant that after a new type had come in, the preceding type became obsolete, and it was the responsibility of the user to guarantee that their money was current. Another consequence of these frequent changes was that the currency never circulated long enough for individual pieces to become excessively worn, or for clipped or bad money to build up in the circulation pool. The divisions allocated here do not reflect anything other than convenience, but the reigns are roughly comparable in length so as to provide a useable framework. The important point is that survival between periods was possible, if not commonplace in each period, and is set out in the graphs below.

The PI (Period I) transition to a Norman-controlled post-Conquest currency system (based on the hoard evidence) shows that for the first *c.*5 years coins of Edward the Confessor and Harold II were available in some numbers (just over 16%). By 1070 coins of William I begin to dominate and by the early-mid 1070s earlier issues were absent.[32] This method is not an exact science but does indicate a progressive shift toward the elimination of pre-Conquest coins through reminting and natural wastage over time (Figure 2.16). In PII (Period II) the picture is very different. The Henry I hoards, other than Bermondsey and Shillington, are almost entirely composed of Henry's own issues suggesting the effective restriking of earlier coins. In PIII there is a greater proportion of older coin present in hoards, particularly in those larger examples from Watford, Prestwich and Nottingham (predominantly Henry I types 14 and 15).

[31] It appears that the 1544 debasement forced much good silver into hoards. It seems that much of this 'hidden' silver resurfaced once a good silver currency had been re-established under Elizabeth.

[32] The Abergavenny hoard (dated to the 1080s) is the exception to this rule, however the numismatist who studied the find suggested that the deposit combined two sums of money gathered together several years apart (Besly 2002), thus providing some evidence for its deviation from the general pattern.

Phase B. 1158 to 1279 (PIV-VI) Closed immobilised system

The second form of currency management saw a sequence of three longer-lived issues; the Cross-and-Crosslet (1158-80), Short Cross (1180-1247) and Long Cross (1247-78) coinages. These systems were managed sufficiently well to ensure that almost all coins of the preceding type were replaced. Archibald (1988) has argued that it took around three years for these currencies to be completely replaced, barring abnormal survivals. A mixture of Cross-and-Crosslets and Short Cross coins were found in the treasure chest of the abbot of Cirencester in 1186 (Cook 1999b: 259) and mirrors the very limited carry-over of *Cross-and-Crosslets* into Short Cross with two hoards – Framlingham Castle (Suffolk,) and London (St. Thomas's Hospital) – including them.[33] The Short Cross period is especially interesting in that within it was effectively a mini-recoinage in 1205 which prompted the removal of most of the poorer clipped coins; hoard evidence shows that post-1205 hoards are generally made up of the post-1205 issues and in any case the earlier hoards are less common. Thus the PAS material performs an important role in the pre-1205 circulating medium where hoards are rarely encountered. The same conditions apply to Short Cross coins in Long Cross hoards, of 21 hoards, just three include coins of earlier types - those at Thwaite (Suffolk), Steppingley (Bedfordshire) and Colchester (Essex) - in this latter case there were just six Short Cross pennies among over 14,000 coins (Archibald and Cook 2001: 67-142).

Phase C. 1279-1544 (PVII-X) Open system with weight reductions

Between the reigns of Edward I and Henry VII a silver coinage of broadly similar design was in circulation adopting only very minor changes. Thirteenth century coins could therefore still be circulating into the late fifteenth century. A partial recoinage in 1299-1300 was directed at removing the intrusive foreign sterling imitations from the Low Countries which had become such a problem, the hoard evidence tends not to include the foreign coins for which there is so much documentary evidence. The single finds should help establish the levels of such coins in general use, whereas hoards discriminate. This

[33] The coins in the London find were considered as possibly intrusive.

period also witnessed the introduction of new denominations, both larger (some of gold) and smaller than the penny and obviated the need to cut pennies into fractions. This was an important development and one which must be carefully considered when evaluating the data. From Period VII a single loss could carry an intrinsic value much higher or lower than was previously possible in the periods of the single coin type. A quarter-noble was worth twenty times the value of a penny, but these finds would appear equivalent in any histogram or distribution map relating the number of single finds from a particular area. That said the larger coins are proportionately less likely to have been lost and presumably many more man-hours would have been spent on their recovery. A sequence of weight reductions took place in 1351, 1412 and 1464 which made the new weight of the penny 18 grains (1.17g), 15 grains (0.97g) and 12 grains (0.78g) respectively. This had the effect of encouraging older circulating coins to be clipped down to conform to the new weight and, in the future, this might provide a framework in which a statistical method could be developed to measure the effects of carry-overs from one period into another.

Geographical regions

Regional analysis will form an integral part of the wider distributional analysis. Map 2.1 lays out the regional groupings adopted in this thesis. In many ways this is an arbitrary formulation but allows a more in depth interrogation of these complex data.

2.5.2 National statistics

Placing the PAS material into this chronological framework (Figure 2.17) reveals an interesting picture characterised by initial low-levels of production and slight increments in output through PI-IV. The PV increase in finds, however, is remarkable and must surely be strongly linked with the availability of new sources of silver at the major continental mines (Spufford 1988). The 3060 Short Cross coins (PV) represent a 1507% increase on PIV. In PVI the numbers are slightly down at 2555, but the method used here does not account for the varying lengths of each period, nor incorporate mechanisms which allow a loss-per-year rate to be considered (see below). In PVII the finds are up well over 100% reflecting the huge documented output of coins in the late thirteenth and early

fourteenth centuries growing to a peak of £1,092,207- £1,092,214 between 29 September 1299 and 29 September 1310 (Allen 2012a: 311; see also Chapter 9 and Appendix C). From this point output declines to 1648 in PVIII, to 914 in PIX, followed by a small increase to 1165 in PX. The extensions to the bars comprise those coins which cannot be identified to a single period but rather two or more - using this format they have been divided evenly amongst the potential periods. Bearing in mind that production between periods varied and that certain types of coin are easier to identify (thus skewing the data in their favour), this is probably the simplest solution to the problem of unidentified pieces. On this basis, considering losses of coins by period and on a yearly basis provides the following distribution (Figure 2.18).

The picture revealed by this method provides a more realistic reading of the finds record (Figure 2.19). The biggest swing is in the position of PVI relative to PV and PVII. Where previously PV was greater than PVI it now surpasses it by 36.64% while also finding parity with the PVII losses which are always viewed as the most common of medieval coin types found. PX is the other main difference in its lower numbers of finds compared with PIX. The key surge in production (PV) is maintained when length of period is accounted for. It is in PVI that the surprising evidence comes with an output rate matching the prolific PVII which came after and when we consider that a proportion of the PVII coins would have been lost in PVIII-PX then the importance of PVI requires some further interrogation. From 1351 (PVIII) multiples of the penny (4*d.* groats and 2*d.* halfgroats) as well as gold coins (the noble of 6*s.*8*d*., its half and quarter) were minted. Each find carries will equal weight in these graphs and alternative ways to indicate the value need to be incorporated if a fair reflection of the losses over time is to be achieved. Plotting the number of finds from PVII-X against the value in pence of those finds produces some surprising results (Figure 2.20).

Gold coins (the smallest of which was worth twenty times the value of a penny) clearly played a part in the shift to value being greater than the physical number of individual coins. However, a further breaking down of coin types and values per period is required, along with a synthesis of the causal economic and social factors in this overall shift. A final

point is that analyses of this sort are limited by the fact that they are based on when a coin was *struck*, rather than *lost* so a key aim of this thesis is to establish ways of factoring in patterns of loss over time. For PI-VI we can be fairly confident that most of the coins were lost within their issue period, for VII-X this is more problematic. Chapter 5 will explore this further. Hoard evidence can be a key tool in establishing a baseline for carry-overs from one period into the next, but there is no hard-and-fast rule to be certain. For the post-1279 coinage Rigold reckoned on a third carry over (1977: 67) although his calculations failed to remove the carry-over third from the preceding period (Blackburn 1989: 19). A third seems to be over-generous.

In conclusion, this chapter has introduced the two methodological perspectives from which analysis and interpretation will stem in later sections of the text. The periodisation method described above provides a framework through which the large volume of well-dated data can be processed and examined at different scales, from site-assemblage and case study groups up to the overall national picture. The life-path or biographical approach complements this broad-scale periodization method by enabling individual biographies to contribute to our understanding of the *many* functions served by coins and the spheres in which they found use. This will be important for interpreting coins that have moved over large distances (particularly foreign coins to be considered in Chapter 6), or those which were transformed into new types of objects (Chapter 7).

CHAPTER THREE

MAPPING MONETIZATION IN ENGLAND AND WALES I

PHASE A: ANGLO-NORMAN COINS 1066-1158

Introduction

Chapter 2 established the value of single coin finds for interpreting aspects of past cultures. It outlined the deposition processes coins were subject to, introduced the dataset and its caveats and set out the methodology and a periodisation scheme with which to pursue the questions central to this thesis. For the first time in medieval coin studies (1066-1544) chapters 3-5 take a large, previously unused national dataset across a broad medieval chronology, and employ new methods to address major questions about the extent and development of coin-use. The overarching aim is to assess the circumstances under which coins were used and lost at the macro-level and to explore how patterns of coin loss over a long chronology can help us understand the spread of coin-use within the geographic, economic and social strata of medieval England and Wales. The results of chapters 3-5 will be crucial not only in presenting the long-term story of coin loss but also in establishing a set of background data against which the targeted studies of later chapters and subsequent scholarship can be tested.

Four broad lines of enquiry are pursued:

1. What can single finds tell us about the changing size of the currency pool? How do internal chronological developments play out in the coinage and how does this compare and contrast with hoard and documentary evidence?
2. What do coin distributions tell us about coin-use and monetization and indeed, are the patterns a reliable indicator of past coin-loss and economic activity? How do coins move from minting to loss and what does this suggest about participation in a money economy at a national and regional level?
3. What can be seen in terms of denominational variation throughout the phases – are coins of lower or higher value used differently to pennies and do coin-loss patterns alter with the introduction of silver multiples of the penny or gold coins?

Who were coins for, how were they used and how does the evidence play out in line with what we know about the increasing commercialisation of the economy?

4. Was use and deposition contingent upon production place? And how did this change over time?

Coin-loss in England and Wales: the PAS data

Spatial analyses of coin finds have a long pedigree in numismatics. As early as 1864 Sir John Evans used coin distributions to posit tribal groupings for Iron Age coinage (Leins 2012: 38; Evans 1864: 36). In the decades since Evans' work Iron Age and Roman scholars have innovated mapping techniques (Haselgrove 1987; 1993) and with the growth in single finds students of the early medieval period began to apply spatial techniques to their material (Metcalf 1993-4; 1998). In recent years, thanks in part to PAS data and GIS software, more advanced applications have appeared (Richards *et al* 2009; Naylor 2007; Leins 2012; Walton 2012). This thesis brings later medieval coins into this debate for the first time through an analysis of 17,425 individual late medieval coin finds.[34]

The data is not evenly spread over the study period with PAS coin finds from the Norman phase particularly scarce (Figure 3.1). Archaeological objects dating to the Norman period are rare (PAS finds dated 1050-1150 number just 85). However the low number of PAS coins imposes limitations on the depth of analysis possible. To obviate the problem data from the Early Medieval Corpus (EMC) have been integrated.[35] This corpus was established at the Fitzwilliam Museum in Cambridge to record single coin finds (410-1180) from published sources as well as new material reported to the museum. The records, having been created by specialist numismatists, are of high quality. Finds are given a four-figure grid reference which for the macro-scale analysis here is sufficient, although is not ideal for any higher resolution mapping.

[34] Of these finds 87.23% possess a 6-figure or better grid-reference providing a level of find-spot detail suited to macro-scale distributional analysis. Records with 4-figure grid references stood at 8.78% while 4.99% had no spatial reference data.

[35] I am grateful to Dr Martin Allen of the Fitzwilliam Museum, Cambridge for providing a spreadsheet of coin records for coins 1066-1158 held on the EMC database for this study (August 2011). This basic data was augmented through adding denomination, moneyer and condition information as well as full records for the cross-and-crosslets coinage from the online records at www.fitzmuseum.cam.ac.uk/dept/coins/emc/

The ten Periods are addressed within the phase structure outlined in Chapter 2 through a regional distributional analysis of single find and hoard data (using GIS) and comparison of key assemblages. Aspects of use and circulation are then considered through analyses of value (denomination) and distribution from source (mint). Complementary or comparative datasets will be used as appropriate. The chronological division brings with it some biasing of data as coins not precisely dated to a single period cannot fit into the scheme. This is predominantly an issue for Periods VII-X, however the large overall numbers of coins in these periods should preclude sample bias (see Chapter 5).

A weakness of many distributional analyses is the masking of multiple finds from single sites which has been avoided here by using graduated symbology. At first glance a map of all PAS medieval coin finds can appear overwhelming (Map 3.1), however discernable patterns are visible. The main constraints are topography and urbanisation. The high ground, where settlement activity is limited, is most prominent in Wales, the Peaks, Pennines and Cheviots. Urbanisation is most visible in the hinterlands of London, Birmingham and Manchester. Some urban assemblages are available to counter this bias and derive from two sources; metal-detecting on the tidal foreshore and developer-led excavations which may or may not employ metal-detectors. East Anglian finds (Norfolk, Suffolk and parts of Cambridgeshire) are extremely prolific but within the mass of point data a subtle north-south divide is present in which Norfolk is characterised by a large number of sites with multiple coin finds whereas in Suffolk there are a greater number of sites known from individual finds. Across the Wash sites in Lincolnshire and East Yorkshire are similar in character to Norfolk and contrast with a large swathe of material running from the Vale of York, through Nottinghamshire, Leicestershire and into Warwickshire. In Worcestershire and north Gloucestershire the pattern of fewer but more productive sites.

Other major clusters of material can be seen, one lies on Bedfordshire's borders with Northamptonshire and Hertfordshire, while to the south a thick discontinuous band of prolific sites skirts the Weald in Kent and Sussex and spreads into Hampshire. Across the

Solent the Isle of Wight is densely packed with finds. Beyond these groups the general pattern is of finds thinly dispersed over the southern region with a rather abrupt lack of finds west of the River Parrett, where just a few larger coastal groupings occur. The Welsh finds are predominantly southern and coastal with a high density in the Vale of Glamorgan. North and west of Birmingham as far as an imaginary line from Merseyside to Sheffield the pattern matches that seen in the less populous areas of the south. To the north of this finds are much less common and tend to be coastal in the west and to a lesser extent the east.

A key question to be asked of the data concerns whether it represents past deposition, modern recovery or a combination of the two. The complexities of sampling bias in PAS material are only now being addressed. Recent work has shown that 'the [PAS] data have been shaped by a wide range of factors… such as limited permissions to search influencing distributions' (Robbins 2012: 248-9). Several PAS datasets exist for different periods and material types and provide an idea of areas where detectorists are active. The Iron Age and Roman coin datasets are two of the largest and have been studied in detail (Leins 2012; Walton 2012). Comparing the distributions reveals two important points (Map 3.2a and b). Topography, in the form of wetlands and high ground, plays a major role in the distribution with negative areas clearly visible in the Fens, the Weald, much of Somerset and Devon, the Welsh Highlands, Yorkshire Moors, Pennines and Lake District. However, the distribution of Roman coins is much more widespread and densely packed, marking the extent of successful detecting for this artefact type.

As these coins are recorded on PAS, it seems fair to assume any other finds made by their finders would also be reported.[36] The fact that the medieval distribution is much weaker than the Roman in the north, north-west and Dorset-Devon coast should be seen as an indirect reflection of absence of material while the same is true of the medieval finds from Cheshire where Iron Age coins are absent. Most striking is the Welsh proliferation but this

[36] There are profound differences in political, social and military aspects of the Roman and medieval worlds which impact on surviving material culture and thus metal-detected data, a specific issue in coinage is the nature of the metal used.

can be explained through the incorporation into Walton's map of the data from the Roman and Iron Age Coinage in Wales Project (Guest and Wells 2007a; 2007b) which gathered together *all* excavated, hoard and metal-detected coin finds. One major criticism in all these datasets from a sampling perspective is the lack of negative evidence (Robbins 2012: 247), inasmuch as fields where artefacts were searched for and none were found are not systematically recorded, as is information on the ratio of hours spent searching against finds made. Future empirical study of this issue would be very welcome. Despite its limitations this data still has huge potential, provided we recognise from the outset its limits.

More valuable however is comparison with contemporary medieval material culture. The distribution of non-coin PAS finds (Map 3.3) is broadly in line with that of the coins (Map 3.1) showing a southern and eastern bias. Areas such as East Anglia, Leicestershire, Hampshire, Isle of Wight and small pockets in Surrey and east Kent are dense with finds in both datasets revealing a plurality of medieval artefacts. Elsewhere however, the picture shifts with coins accounting for a greater percentage of the material recovered. Much of Lincolnshire and the Trent Valley is underrepresented by non-coin finds as the pattern becoming increasingly acute in favour of coins the further north one travels. A similar picture obtains in Cheshire and the north-west. In short coins provide the most ubiquitous and widely distributed material culture from the later medieval period (Figure 3.2).

Interpreting coin loss in its broadest sense requires some understanding of the people who lost coins, or at least where the people who lost coins were active in the landscape. Settlement patterns in the medieval period were never static, expansion and contraction resulted from a range of factors from population growth and decline, conflict, and the planting or forced transplantation of communities. Comparison with Roberts and Wrathmell's (2000) map of deserted settlements (Map 3.4), shows areas of correlation between settlement and finds, particularly in the Midlands and Lincolnshire, however the prolific finds in East Anglia and the South East are not matched by sites. This is in part explained by the nature of the distribution of shrunken or deserted settlements which, in

the Midlands and South West, are more visible and in many cases have been subject to fieldwork (Dyer 1997: 32). This map fails to show medieval settlements which prospered and were not abandoned or shrunken. A second map showing the mid-nineteenth century pattern is more useful (Map 3.5) as it populates areas away from the 'Central Province' with settlement. This is a helpful comparison, particularly for revealing the nature of areas with genuinely low settlement density such as the Weald, Fens, the South West and North West. It also reminds us that the pattern of finds, for a complex variety of reasons (see Robbins 2012), does not present a full national sample of coinage. The next section addresses the first phase of medieval coinage covered in the thesis.

3.1 Phase A: The Anglo-Norman *renovatio* system (1066-1158)

Structurally the currency that William I inherited at the Conquest had been established for almost a century. A coinage reform under Eadgar (959-975), recorded by the monk-chronicler Roger of Wendover for the year 975,[37] decreed that a single 'portrait' coinage be produced and inscribed with mint and moneyer's name. This was a crucial advancement in the administrative control exerted by the king over his coinage and transformed it into one of the most well-managed in Europe. This *renovatio monetae* model, expressed by new coin types issued on something approaching a regular basis (*c.*3-6 years), survived for nearly 200 years. The moneyers made a seigniorage profit by the process as a charge was levied at the mints for the exchange of old money. These frequent changes also ensured the currency was not circulating long enough for individual pieces to become excessively worn, or for clipped or bad money to build up in the circulation pool. EMC finds account for the majority of the corpus in Phase A (Figure 3.3). Single finds are more numerous in PI than PII with PIII the most prolific period, in contrast to the excavated evidence which is low in PI and grows to a level sustained in PII and PIII. The hoard evidence is most profuse in PI, very low in PII but returns to its initial level in PIII. Over the Phase the average value per coin lost decreases marginally perhaps indicating diversification of coin-use. For much of the twentieth century Brooke's (1916) magisterial

[37] The date given by Roger, writing in the thirteenth-century and based on a now-lost source, has been argued to be faulty based on mistakes in his dating of other events as well as numismatic evidence. The date of *c.*973 is preferred among numismatists today (Dolley 1979: 3) but any year in the first half of the 970s is possible (Allen 2012a: 16).

British Museum Catalogue on the Normans inhibited further study (Archibald 2003: 77). However with the growth in new finds in recent decades comprehensive surveys of coins of Henry I and Stephen (Blackburn 1991; 1994) and broader syntheses of aspects of the Norman coinage (Allen 2006; Allen 2012b) have appeared alongside thematic works on distributional and structural questions (for example Metcalf 1998). To unpick the complexities of these sources of evidence each Period will be investigated in turn.

3.1.1 Period I (1066-1100) William I and II

William of Normandy's conquest of England and assumption of the throne in 1066 has been traditionally seen as the replacement of one political elite and it's institutions with another.[38] Despite the shifts in the structure of landownership and governance, coin production remained largely as it had done under William's Anglo-Saxon predecessors with many moneyers continuing in office into the new reign. Men like the London moneyer Deorman and his successors appear to have maintained their position from a generation before the conquest into the mid-twelfth century (Nightingale 1982:38). William would have been well aware that he was inheriting one of the best managed and finest quality currencies in Europe and one of the only changes implemented was to appoint a royal *cuneator* or die-engraver, a hereditary position held by the Fitz Otto family in London. From there dies were issued to more than 70 mints active across England and Wales over the period.[39] The numismatic sequence for the coins of the first two Norman kings has stood the test of a century of new finds (Carlyon-Britton 1905).[40] Eight types were attributed to William I and five to William II, each with distinctive obverse and reverse designs (Figure 3.4). The penny was the only denomination struck and these were cut into halves or quarters to produce smaller denominations.

[38] Stenton wrote that 'by 1087, with less than half a dozen exceptions, every lay lord whose possessions entitled him to political influence was a foreigner (1971: 680).

[39] Recent work suggests that coins in the name of Harold II may have continued to be struck posthumously at Wilton under the powerful Edith of Wessex (Williams 2012).

[40] The only query has been whether type 8 was begun by William I and continued under William II (Metcalf 1988: 13-26) or was the first type of William II (Archibald 1984: 320, 327-8). The evidence from Wales seems to favour Archibald's interpretation.

The combined PAS and EMC records total 534 coins. Removing those without spatial data leaves 348 from 225 parishes. The loss-per-year figure is 15.7 with an average value of close to a penny at 0.93*d*. In this period the proportion of imported coins in the sample is zero although foreign coins from other sources are known (see Chapter 6). The PI distribution (Map 3.6) reveals three interpretive problems associated with metal detector finds. First is the apparent clustering of finds close to the EMC at Cambridge (Fitzwilliam Museum) and from adjoining counties (especially Norfolk). The Norfolk bias may in part be explained by county FLO traditionally reporting all their finds to EMC and the local HER but not PAS. Bias may also be seen in Cambridgeshire by observing the county's share of coins throughout the period of study. In Phase A this figure is 13.8% while in Phase B (7.7%) and C (6.7%) this drops off markedly. The EMC records coins up to 1180 and this discrepancy is likely the result of local detectorists recording their finds with the EMC. A second problem concerns the so-called 'productive sites' which have generated some debate among scholars (Richards *et al* 2009; Haldenby and Richards 1999; Blackburn 2003; Naylor 2007; Chester-Kadwell 2009).[41] The temptation on sites such as 'near Bury St Edmunds' is to regard them, sometimes speculatively, as markets or fairs (Newman 1994; Kelleher 2008) however as Blackburn shows they occur in a range of contexts (2003: 21). Richards regards productive sites as no different from excavated sites (1999: 70). The third problem regards possible ploughed out hoards, however it is often easy to establish such examples from study of the coins themselves and a knowledge of the hoard record.

The PI coins are outlined in Figure 3.5 and Figure 3.6. Surviving coins broadly follow the number of mints active for each type suggesting that the number of production centres was closely linked to the volume of coins struck. The pattern shows BMC 8 at a level unmatched by any other type. Excluding BMC 8 reveals a more even pattern with a dip often following a surge in production probably reflecting the inconsistent ebb and flow of silver available to the mint which may also have been regionally contingent. The modest numbers seen in William I BMC 1, 3, and 6 and William II 1, 4 and 5 are punctuated by

[41] The term 'productive site' was coined by metal-detectorists to describe sites which yielded high numbers of coins and artefacts, particularly Anglo-Saxon, and has fallen into the archaeological vernacular (Naylor 2007: 38).

higher levels in the types in between. BMC 8 (119) is twice as prolific as the next placed type (57) and brings into focus questions around length of issue and its proper attribution to William I or II. Is it possible to support a rise in output accompanying the coronation of William II, or a real drive to re-coin the existing stock into a type for a new king, or should we be thinking that BMC 8 was of longer duration than other types, as in the case with Henry I's type 15? It is not within the scope of this thesis to pursue a full study of BMC 8 but such research might provide a more solid base for interpreting the internal chronology. Sixty-five mints are known to have struck this type, 10 more than BMC 5 yet it is over 100% more prolific among single finds. Typological distributions (Maps 3.7-3.9) reveal little evidence of regional variation. Areas with higher finds numbers are more likely to include the rarer coins while those more prolific types such as William I BMC 8 have a broader distribution. While William I BMC 5 occurs in the main zone of finds a band of these coins pushes into the south Midlands and western counties as well as the Wirral. Whether this is a quirk of a small sample or a real pattern requires more data to ascertain but the few hoards containing BMC 5 are similarly located with two hoards in Hampshire where no single finds have yet been found.

3.1.2 Period II (1100-1135) Henry I

Soon after Henry I's coronation on 5 August 1100 a new coinage was in production. The *renovatio* system continued with new designs perhaps every 1-2 years, but the period was marked by both problems and innovations (Blackburn 1991:75). In 1100 and 1108 chroniclers reported concerns regarding forgery and debasement which culminated in 1108 in a reform decreeing that all coins be snicked prior to leaving the mint evidently to prove the coin was not a plated forgery (Figure 3.7). Some type 6 and all types 7-12 show this treatment (Blackburn 1991: 63).[42] By 1124 conditions had worsened, the *Anglo-Saxon Chronicle* reported a great purge of moneyers at Winchester in which many were mutilated as punishment for false coining. Blackburn has argued that the introduction of type 15 resulted from this and effectively reduced mint numbers from 52 to 21, instituting a single type for the remaining 10 years of the reign. For the majority of PII the currency

[42] There has been a systematic study of the alloy used in Henry's coin types which is to be published by Marion Archibald and Matthew Ponting.

consisted of pennies, which would be cut down to fulfil the need for smaller denominations.[43] The coinage of Henry I was the subject of two studies in the early twentieth century, the latter of which laid the relative chronology of 15 sequential types largely still in use today.[44] From the 1950s Brooke's middle sequence of types (7-11) came under scrutiny and prompted several revised arrangements.[45] The chronology is by no means secure but the sequence preferred here is that suggested by Archibald (1974, preferred by Blackburn 1991) which runs 1-6, 9, 7, 8, 11, 10, 12-15. Types 1-14 continued the *renovatio* system, however type 15 – which is the most prolific among single finds – was struck for *c*.10 years, a precursor of the immobilised systems introduced under Henry II and Henry III. It is crucial that the corpus of finds of these less common coins is periodically revisited as new material, accumulating each year, can have important consequences for interpreting the period. Allen has produced the only significant survey of Henry I's coinage since Blackburn over 20 years ago (Allen 2009: 74; Blackburn 1991; but see Allen 2012b); none of these works attempted to analyse distribution patterns.

The combined PAS and EMC records total 472 coins. Removing those without spatial data leaves 412 with find-spot information from 281 parishes. The loss-per-year figure is 13.5, down from PI, with an average value per coin of 0.87*d*. No foreign coins are recorded although some are known from other sources (Chapter 6). The PII distribution (Map 3.10) is similar to that seen in PI. Areas of north and central East Anglia west of the Fens have produced the largest coverage of finds geographically. Elsewhere the picture is one of smaller focused clusters accompanied by expansion into new areas such as west and north Wales, the Isle of Wight and the Lancashire and Cumbrian coast. Significant expansion is visible in Hampshire and the West Country, particularly in Wilshire, Avon and Somerset. The fewer overall find-spots often consist of multiple coins where in PI more single coins

[43] One type of possibly experimental round halfpennies was struck *c*.1108 but these are extremely rare as finds; of the fourteen known examples eight are recorded on EMC (one on PAS). See Figure 3.7.
[44] Andrew's (1901) numismatic history of Henry I's reign was flawed and heavily criticised (see Crump and Johnson 1902) and it was another 15 years before a fresh study (Brooke 1916) became the first widely accepted chronology for the Norman series (Archibald 2003: 76-7).
[45] Dolley (1966) favoured 7, 8, 9, 11 10; while Archibald (1974, favoured by Blackburn) suggested 9, 7, 8, 11, 10; Seaby (1988) preferred 9, 11, 10, 7, 8; and Conte and Archibald (1990) reckoned on 9, 8, 7, 11, 10 (favoured by Allen 2012a).

were the norm. This perhaps indicates some level of centralisation of coin-use at this period focused on a smaller number of more important sites.

The coin evidence from PII reveals several broad trends (Figures 3.8 and 3.9). The first concerns the quantity of money produced over the period relative to the mint network. The low numbers of 1-13 show a small currency and a broad symmetry between surviving coins and active mints, however in types 14 and 15 this dynamic shifts. Type 14 is notable for the large number of moneyers (141) active in a type estimated as being struck for just *c*.2 years yet represented by only 19 coins (ranked eleventh). However in surviving hoards type 14 is the most numerous (Allen 2009: 74). This clear discontinuity must reflect changes in mint management and brings into perspective Henry's assize and subsequent punishment of the moneyers in 1124. BMC 15 – which circulated for an extended period compared to earlier types – dominates the assemblage (28.2%) followed by type 10 (12.5%) while six types are represented by 20-40 coins (BMC 1, 2, 3, 4, 9 and 13) and seven by less than 20 coins (BMC 5, 6, 7, 8, 11, 12, 14). The idea that BMC 15 was a long-running type over ten years (Blackburn 1991) is reflected in single find numbers. However this fact distorts its importance as calculating loss-per-year of issue reveals BMC 15 with 13.3 losses-per-year compared against BMC 2 (*c*.39), BMC 9 (16.5) or BMC 10 (29.5). Although BMC 7 is distributed in a linear band from Worcestershire to Suffolk analysis by type reveals very little chronological patterning (Maps 3.11-13), the low proportion of coins could be a factor in this.

The single find record suggests an inconsistent level of production. The ubiquity of BMC 15, a result of its long duration, masks the prevalence of BMC 10. At the same time it must be recognised that PII is the least productive of all periods and as such caution must be exercised in attaching too concrete an interpretation to a small sample.

3.1.3 Period III (1135-58) Stephen and the baronial coinage

Upon the death of Henry I Stephen of Blois, nephew of the dead king, made swiftly for England, claimed the treasury at Winchester and was crowned at Westminster on 22

December 1135 against Henry's wish that his surviving legitimate child, Matilda, should succeed him.[46] The coinage of this period has been termed complex, challenging, intriguing and difficult among the English series (Blackburn 1994: 145; Mack 1966: 39), a challenge arising from a currency struck in the exceptional circumstances known historically as the Anarchy (*cf.* Poole 1966: 131). In 1139 Matilda entered England and supported by her half-brother Robert of Gloucester and uncle, King David of Scotland, attempted to claim the English throne. The warfare and upheaval in the years between Matilda's entry and the Treaty of Westminster in 1153 had a profound impact on the ability of central government to maintain control of minting activity – particularly away from the south and east where Stephen's hegemony remained strongest. In this period Matilda and other noble factions struck coins alongside those of the king – the single occasion in English currency where this 'feudal' model flourished. Contemporary chroniclers provide some evidence in this matter; William of Newburgh wrote (*c.*1198) that during the civil war 'each tyrant minted his own coinage' (Howlett 1884: 69) while William of Malmesbury's claim that 'sometimes hardly twelve pennies could be accepted out of ten shillings or more'[47] (Potter 1955: 42) adds to the impression of a currency in turmoil although contained within it more than a hint of exaggeration given surviving coin evidence.

This diverse coinage comprises many regional derivatives and varieties in addition to the four substantive types of the king (Figure 3.10). Brooke's 1916 *British Museum Catalogue* classification of Stephen's coinage wrongly assumed that several types were substantive rather than local issues; the sequence is today accepted as I, II, VI and VII, with types II and VI being confined to areas controlled by Stephen in the south east (Archibald 1991b: 9). BMC III-V are rare East Midlands issues while the remaining types are either type I derivatives or issues for individuals such as Matilda and other barons, principally in the South West and Yorkshire. There is some debate concerning the exact dating of Stephen's

[46] Henry had exacted an oath from the leading barons in 1127 that Matilda would succeed him however there was clearly a level of anxiety at the prospect of a female Angevin ruler, and one who was seen as haughty, tactless and grasping (Poole 1966: 131).

[47] The evidence of the weight of Stephen's BMC I coinage provides some substantiation in support of this statement, largely for mints in the south-west, but not to the extent claimed by the chroniclers.

types; that preferred here follows Archibald (1991b). Previous work has focussed on the structure of minting (Blackburn 1994) with little analysis of the distribution of finds[48] and so the major question concerns regional minting and circulation patterns amid the breakdown of central royal authority.

The PIII corpus stands at 639 coins. Removing those without spatial data left 549 from 377 parishes. The loss-per-year figure of 27.8 is double that of PII and the average value of 0.8*d*. signals a small reduction from PII. Twelve Scottish coins (1.9%) signalled the first striking of coins north of the border and began the complex, strained interplay between the coinages of the two kingdoms. The distribution of PIII coins reveals a general continuity from PI and II (Map 3.14). Single finds are prolific in Norfolk and Suffolk[49] (with particular focus on the eastern edge of the Fens between Thetford, Newmarket and Stoke Ferry and on the coast at Dunwich) and continue in lesser numbers through Essex, Hertfordshire and Buckinghamshire. Lincolnshire, Nottinghamshire and South and North Yorkshire enjoy significant finds with some sites producing multiple coins, the most prolific of these are urban sites like Lincoln and Newark. Beyond the Vale of York finds thin out abruptly, with a scattering in County Durham and Northumberland. In the north-west the evidence is thinner still. The Midlands seem underrepresented for single finds although a number of important hoards come from the region. In the south-east coins are found in London and Winchester and their immediate hinterlands with others in north-west Kent and Sussex and a band running from Sevenoaks in Kent along the North Downs and then in an arc down the Arun Valley to the coast near Arundel. In the south-west coins are present in small numbers and widely dispersed with no obvious concentrations of activity beyond an area around Poole Harbour and the Frome and Stour Valleys. No coins are found west of the River Parrett. The Severn Valley and Estuary and South Wales show

[48] Fairbairn (2008) carried out some basic distributional analysis for Stephen's coins showing evidence of regional distributions in the 'Anarchy' period.

[49] In East Anglia there is a distinctive difference between the prolific number of single finds set against the one hoard from the region. Given that the number of single finds is a measure of the levels of detecting activity one might expect more hoards to be discovered. That they have not is suggestive of conditions in which hoards were either deposited less often, or that their recovery rate was higher.

increased coin-loss from PII probably linked to this area being the focus of activity for Matilda and her supporters. These regional dynamics are explored in detail in 3.2.

PIII presents one of those rare occasions where historical events had a tangible impact on material culture, in this case in coin production and circulation. Mapping typological distributions is a key tool in assessing the limits and boundaries of the issues against the backdrop of Stephen's loss of political control of England and the impact of coins minted by Matilda and minor barons. Figure 3.11 sets out the numbers of coins of Stephen's substantive types and the baronial issues. The typological and distributional analysis follows on a type-by-type basis.

BMC I. Cross Moline or 'Watford' type (c.1135/6-42)

Stephen's first type was struck at some 50 mints with a wide geographical coverage and is the most prolific surviving type (Map 3.15). Stephen's vision for minting arrangements was expansionist, he opened a number of mints often reversing closures made by Henry I, but also granting mints to at least six new towns (Blackburn 1994: 153). Over the type there is clear evidence for an incremental weight reduction, particularly visible in the South Kyme hoard from 1.39g in the early issues down to 1.27g at the end of the type (Seaman 1978: 69).[50] BMC I accounts for 39.6% of the PIII coins probably a consequence of its continued circulation throughout the period rather than through rapid velocity of circulation and loss before 1142, 30.8% of the 26 hoards are composed of type 1. The East Anglian bias is strong with significant numbers in Norfolk, Suffolk and into Hertfordshire and Buckinghamshire. Lincolnshire, Yorkshire, Surrey and Sussex also figure as do some of the major towns with London (8) and Lincoln (6) prominent.[51] Finds predominate in the eastern half of the country with a curious absence in east Kent. Isolated single finds are to be found in the South West and the Severn Valley and Estuary with minimal Midlands

[50] Converted from figures given in grains (1 gram = 0.0648 grains).

[51] It is noteworthy that these two particular towns were important to Stephen. London in general remained loyal throughout the reign while efforts to hold or recover Lincoln were constant priorities (Poole 1966: 155). Not included in the EMC dataset are the 10 coins of Stephen found at the Vintry in London (Kelleher and Leins 2008: 181-2) and highlights the potential that excavated finds from urban sites have in defining the role towns played in monetary affairs. Other principal towns and ports probably conceal comparable numbers of coins, see for example Hall (2012: 76) for Perth in Scotland.

finds and none in the North West. The finds data does not correspond to the mint distribution, giving the impression that money is being drawn eastward from source, or that mints in the east are larger producers. This latter is likely as the ports in the south-east drew in the majority of new silver through trade with the Continent. That said the absence of coins close to the Kentish mints and the lack of the London region as dominant suggests this explanation is not universally applicable.

BMC II. Cross Voided and Mullets (1142-c.1148)

Stephen's second type was probably minted in the 1140s and was limited to a much reduced area of production. This reduction is mirrored in a concurrent contraction in distribution (Map 3.16). The 63 finds are restricted to East Anglia, London and the South East with only two finds beyond a line from the Solent to the Wash. Outliers comes from Ollerton (Notts.) and Swansea. This contrasts somewhat with hoards deposited in PIII and known to contain type II from Kent, Wiltshire and Derbyshire. The limited dispersal correlates with the mint distribution for type II which itself reflects Stephen's loss of control of the north to the Scots and Midlands following his captivity at the battle of Lincoln in 1141. It could also suggest most were lost within, or shortly after, the production of the type. Type II is present in just three hoards in varying quantities; the largest number (38) were within the area of minting for the type at Linton (Kent) but Winterslow (Wilts., 5 coins) and Sheldon (Derbs. *c.*2) shows movement beyond this zone.

BMC VI. Profile/Cross and Piles (c.1148-53)

Stephen's third substantive type continued to be struck at mints in the south and east but with a shift in emphasis to mints north of the Thames (Map 3.17). There are fewer in Kent but new premises extending beyond the Fens at Stamford and Eye and also in Northampton suggest the resumption of some political authority here. Type VI equates broadly to type II in quantity (52 coins) and distribution, with an East Anglian bias. Growth is seen in Essex, north-west Kent and the Sussex coast. Their absence from London and Surrey is curious considering that two type VI coins were found at the Vintry site (Kelleher

and Leins 2008: 216, nos. 756 and 757). Two poorly recorded hoards from Nottingham and 'Kent' include at least one type VI coin.

BMC VII. Cross Pommee or Awbridge type (c.1153-8)

The re-establishment of a functioning national network of mints producing a new type in Stephen's name was established by the peace agreed at the Treaty of Westminster (1153). This ended the conflict and allowed Stephen to die on the throne provided Henry of Anjou (Henry II) succeeded him. Ralph of Diceto's account of the negotiations refers to an agreement to have one currency throughout England (Stubbs 1876: 296-7; Allen 2007a: 258-9) and this was implemented through the reinstatement of 47 or 48 mints supplied with dies from London. Mints that had not been active since 1125 or earlier were reopened as were several new establishments, some of which had come into production for the Angevin party. Production of the type continued after Stephen's death up until Henry II's reform of the coinage in 1158. Despite the relatively short time scale for this type they are the second most common after BMC I indicating a significant attempt to eliminate the independent and baronial issues and restore the currency to something like it had been prior to the outbreak of war (Blackburn 1994: 162). Ninety-six coins are recorded in the dataset (15%).

The distribution (Map 3.18) accords well with that seen for BMC 1 with clustering in East Anglia and finds spread in the eastern half of the country. Lincolnshire, North Yorkshire, Herts/Bucks and the south eastern counties all have finds with single outliers penetrating into the south west (Wiltshire, Dorset, Somerset), the Vale of Glamorgan and Derbyshire. With the exception of one unrecorded 'Kent' hoard all those containing type 7 were buried in the successive PIV indicating some continued circulation after the type was officially replaced in 1158.

Independent and 'baronial' types

As a group the following types chart the breakdown of Stephen's control over coin production in England both temporally and spatially. They have been arranged in groups for convenience (Figure 3.13).

Group A. Pereric, Erased dies, Irregular type 1 (variants, Queen Matilda)

This group comprises some of the early variants based upon BMC 1 (Map 3.19). The PERERIC type was of good silver and struck at seven mints from centrally produced dies early in the reign. They resemble BMC I coins in all but the replacement of +STIEFNE with +PERERICM in the obverse legend. The meaning of this inscription is debated but the best interpretation suggests that this is a vernacular form of Empress M[atilda] derived from the standard medieval French *Empereriz*. This fits with the accepted dating of the type to Spring 1141 when Stephen was held captive and Matilda was in London to grant a charter to William Fitz-Otto, the official die-cutter (Blackburn 1994: 175). One PERERIC coin (minted at Lincoln) is in the dataset and was found in Lincolnshire. Although this coin was found close to the mint we find that hoard coins travelled greater distances with no distinction as in the Prestwich (Lancs.), Sheldon (Derbs.), South Kyme (Lincs.), Watford (Herts.) and Linton (Kent) hoards.

The BMC 1 irregular types generally deviate from the official design in some minor way and thus are difficult to date precisely. Five are of a type known only from Adam at Oxford (N887), four are of a type seemingly struck at Oxford and Northampton (N888) with three others of the variant N882. The distributional directional ellipses for each of these types reveal localised circulation centred on Oxford, Northampton and parts of East Anglia, with the distribution of N882 (excluding the Sussex outlier) favouring a Norwich attribution. A second group of BMC 1 irregular coins is attributed to Stephen's queen Matilda. These were probably struck during his captivity in 1141 and incorporate roundels on the reverse central cross. They were minted at Ipswich, Sudbury, Bury St Edmunds and Thetford with the three in the database minted at Ipswich. Their distribution, in a band running across the Norfolk/Suffolk border at Ely, Thetford and Shadingfield (Suffolk), is highly localised

within the area controlled by supporters of the king. However their wider dispersal is shown in hoarded groups such as the Prestwich hoard.

The erased-die coins are known from 15 mints and have been divided into three major groups; Lincoln and Stamford, Nottingham and East Anglia, as well as additional miscellaneous mints (Blackburn 1994: 176-7). In each case the dies – sometimes after having been used to strike official coins (*cf.* Stamford, Mack 1966: 59) – have been mutilated in some way with marks or symbols punched into the dies. For example the scratches on the Bristol die look like an attempt to deface the kings image (Blackburn 1994: 177), while in other examples a full long cross covers the obverse (East Anglia), a neat bar or cross has been added to the sceptre (Lincoln) or even on the kings face (Nottingham). Explanations of these 'defacements' range from the work of Matilda's supporters, while others see them as being cancelled in times of trouble (Brooke 1916: lxxxvi-lxxxi; 95) and subsequently called back into use (Archibald 1991b: 19-20), while Blackburn maintains that for the Nottingham and Norfolk groups the coins were meant to circulate and be seen and were a politically motivated statement (1994: 178). It is highly unlikely that the motivation for mutilation were shared at each mint but the very fact that this was allowed to occur implies that access to and control of dies was open to abuse and interference. Six erased-die coins are in the dataset, three are Norwich issues (found in the eastern counties of Yorkshire, Norfolk and Essex), while a Winchester find is probably of the Bristol type. Two others remain unattributed.

B. Local issues: BMC 3-5, Midland and Southampton groups

Brooke's BMC 3, 4 and 5 are now known to have been local issues minted outside of the areas of Stephen's control, presumably in response to the vacuum in coin-supply caused by the conflict. These types are considered here alongside three other distinctively local groups from the East Midlands, Southampton and the north.[52] They share common elements with BMC 1 and 2 placing them chronologically in the 1140s (Map 3.20).

[52] A fourth 'Eastern' group struck at Lincoln and Thetford is known (Mack nos. 169-74) but no examples of the type have come to light as single finds.

Surviving examples of BMC 3 are poorly struck resulting in incomplete mint names. Northampton (certain) and Huntingdon (possible) have been plausibly mooted while Norwich and Launceston remain unlikely suggestions. Two of the four coins were found near Northampton with others from Bourne (Lincs.) and Peterborough (Cambs.). It is probably significant that all four finds are located close to the mints of Northampton, Huntingdon and Stamford. It seems appropriate to discount Launceston (listed by North 1994: 208) and Norwich (as Mack suggested) as responsible for this type. The Winterslow hoard extends the range of this type outside of the single find zone. BMC 4 is known from the mints of Lincoln and Nottingham with six pennies and three halfpennies in the dataset. Of these Lincoln accounts for seven specimens with two uncertain. They form a tightly clustered group in South East Lincolnshire reinforcing a very localised circulation zone. BMC 5 is known only from the Leicester mint. Of the three finds two are from Doncaster while another is from Siwinderby (Lincs.), none have legible mint signatures and require more finds for further interpretation.

Only one find of the Midland group is recorded from a site near Doncaster (Yorks.) some considerable distance from the Midlands mirroring the northern distribution of the Leicester-minted BMC 5. The Southampton group is attributed to two moneyers (Sanson and Willelm) at Southampton but has sometimes, erroneously, been given as Northampton. Fifteen coins are in the dataset making this a considerable issue in terms of the regional derivatives. The distribution shows a cluster around Winchester, two Dorset finds, four in Wiltshire and Oxfordshire, and further afield in Buckinghamshire, Lincolnshire, Surrey and Worcestershire. This is compelling evidence for a Southampton coinage of regional importance in the south and concentrated in the zone between Stephen and Matilda's main areas of control.[53] The Northern group, attributed to York, appears as one find from Norfolk some distance from its proposed source although was present in the Nottingham hoard.

[53] The presence of the English Channel makes it impossible for Southampton to appear at the centre of the distributional ellipse for those coins attributed to the city.

C. York issues

Around the period of Stephen's capture in 1141 York was cut off from London and turned to its own resources to produce dies. Some of the more attractive and varied designs of the Norman period originate in this series. This large group is attributed to York based on shared stylistic motifs and one type, attributed to Eustace Fitzjohn bearing the inscription EBORACI. Both royal and baronial types comprise this group suggesting die-cutters working outside of direct political allegiance. The single finds are dominated by the flag type and its varieties (12) most of which are found within the distribution ellipse (Map 3.21). Individual coins of William of Aumale, Eustace FitzJohn and Archbishop Henry Murdac[54] also cluster within the zone while the single 'Wisegneta' coin comes from Norfolk. The remainder of the finds are dispersed into Lincolnshire, Suffolk and Essex. The directional distribution ellipse for the York coins broadly covers the north-east counties of North Yorkshire and Lincolnshire and parts of South Yorkshire and Cambridgeshire with an inter-regional distribution on both sides of the Humber, but concentrated on the northern side with occasional finds in East Anglia. Other than those in Lincolnshire, the finds avoid the intermediate zone and the Angevin west as well as the areas fully under Stephen's control. An interesting property of the York coins is the overrepresentation of fractions against the mean for PIII (six pennies and cut-halfpennies and three cut-farthings). They are distinguished in design as a group and perhaps their division was a consequence of trying to mask their 'otherness'. Three hoards contain York types. The Catal hoard from near York had an uncertain number (many unprovenanced coins are thought to have derived from this seventeenth century find). The others come from Wiltshire and Kent, well away from the zone of single finds.

D. Scottish border

In 1136 David I of Scotland captured much of Cumberland and Northumberland including the English mint at Carlisle. In the resulting treaty Carlisle remained under David's control but continued to mint Stephen's coins. Coins were also struck in the name of David's son,

[54] Earlier authors attributed this type to Stephen's brother Henry of Blois, Bishop of Winchester but it has been argued that it is in fact a coin of Henry Murdac, Archbishop of York (Blackburn 1994: 185-6), a much better fit considering the stylistic affinities of the York group.

Henry of Northumbria (1139), who held the earldom of Huntingdon from 1136. For a group of coins minted in Scotland and the north of England the distribution is wide (Map 3.22). The densest focus is in North Yorkshire with isolated finds in Cumbria, Lancashire and Northumberland. A tranche of finds in the east of the country from the Humber, through East Anglia, Buckinghamshire, London and Surrey indicates an extension of the currency zone well beyond the source. The sole North West coin is a Scots issue and indicates the region had a more direct axis of trade and coin-use than with areas in the east. The five coins of Stephen type I are widely spread from Yorkshire to Bedfordshire, while the more prolific issues in the name of David are predominantly in Lincolnshire and Yorkshire with individual examples on the western periphery at Blackpool and in the south at Radlett (Herts.). The broadest distribution comes from coins of Henry with a number from sites down the eastern half of the country in Northumberland, County Durham, North Yorkshire, Lincolnshire, Cambridgeshire, Suffolk, London and Kent plus one Cumbrian find. Of these three were minted at Carlisle while seven came from Corbridge. We might speculate that Henry's presence in his earldom of Huntingdon accounts for the relatively high proportion of his coins in the south. Three hoards contain these types, two from the North West in Lancashire and Derbyshire and one from Kent. All are situated on the margins of the distributional ellipse.

E. Angevin (Matilda, Henry of Anjou, William of Gloucester)

Matilda's support was strongest in the South West where, with her half-brother Robert of Gloucester, coins in their names and in those of other minor barons were struck. A total of eight coins are in the dataset from four of the recognised types (Map 3.23). The largest group are those attributed to Henry of Anjou but these are probably anonymous issues in the name of the dead king Henry I. Two were lost close to their mints of Gloucester and Cirencester with others in Herefordshire and Buckinghamshire. The other coins are scarce – Matilda, from Monmouth, and Dorset finds of William of Gloucester and Patrick of Salisbury, from Ludgershall and Salisbury. Hoards including Angevin types are indicated on the map. The limited nature of the surviving evidence for these types is highlighted by the find of a hoard at Box, Wiltshire in 1993/4 (Archibald 2001). Among the 104 coins was a

large, previously unrecorded 'lion type' in the names of Robert and William, successive Earls of Gloucester. The find was made close to the centre of the proposed distribution zone.[55] Other types, like those of Henry of Neubourg, are known from some hoards but have yet to be recorded as single finds reminding us of the incomplete record from which we work, particularly regarding localised issues in areas of lower overall find numbers, like the South West.

3.1.4 Summary and interpretation

Exploring spatial distributions over Phase A has shown a level of continuity of coin-loss in some parts of the country with subtle variations in expansion and contraction in evidence. The dominant areas for finds in PI – Norfolk, Suffolk and Cambridgeshire remained the core zone for finds and this early focus, although influenced by recording bias to some extent, exemplifies the very real east-west difference in engagement with coins on any significant scale. Expansion of monetization over the course of PI was contingent upon levels of production, which for William I BMC 5 and 8 appear to be at levels which encouraged development into new parts of the country, especially the south Midlands. In PII circulation expanded into Avon, Hampshire and Wiltshire and extended the limits of coin-use in the north and west, pushing traditional boundaries. The evidence of fewer but multiple assemblages could be suggestive of the development of central local market centres acting as hubs for the influx and distribution of coins. These ideas will be explored in the regional analysis below (3.2).

Nowhere in this thesis do political events more obviously impact coin production and circulation than in PIII. The civil war of Stephen's reign stunted the early growth in coin-losses seen in BMC I. As the official mints became limited to the south and east single finds come to play a substantial role in mapping the extent of local coin provision. This is manifest in a number of small issue 'zones' operating on the periphery of Stephen's area of control in the north and east Midlands and the central southern area. In many cases

[55] New finds of this period have the potential to seriously alter what we know of coin production and issuers at this period. The Coed y Wenallt hoard found in 1980 trebled the recorded coins of Matilda (Boon 1986: 37).

these do not overlap and suggest limited mint output and a contraction in participation in longer-distance trade networks. Although small in number these groups provide vital evidence for the breakdown of national minting networks and how baronial self-interest was made manifest in coinage. Blackburn warned against their usefulness for historical interpretation (1994: 167) and while his warning is noted distributional analysis has revealed discrete patterns of local minting in a period of short supply. Repeated in the comparison of hoard and single find data is the idea of differential movement of coin based on context. The circulation zones of Stephen's type II and VI and the irregular and baronial coins show a fundamental difference based on whether the coin is a single find or hoarded. Hoard coins act differently and are able to travel and become mixed among the groups of general coins while as individual finds they are limited. This says something about how stores of money moved. Local level discrimination but as 'bullion' or stored silver it was acceptable.

A key research question in this thesis concerns how and when coin-use developed from a national perspective. The data in this phase is limited by a number of complicating factors including the small size of the sample which makes statistical methods impractical and the effect of bias in EMC which cannot be offset by inclusion of PAS data. However, distributional analysis, particularly of the irregular types proved of significant value to the interpretation of the finds.

3.1.5 Hoard patterns

The interpretation of single finds relies on comparison with this major source of numismatic scholarship. A total of 82 hoards are recorded from Phase A at levels of detail usually contingent upon date of discovery (Chapter 2), whereas the legal requirement to report all hoards as Treasure Trove, and from 1996 under the Treasure Act, has created a strong record for the past 60 years. Hoard data will filter into much of the subsequent discussion and although more detailed consideration appears in the regional section a broad outline of the national picture in each Period follows.

PI hoards (Map 3.24) are more evenly spread than the single finds but share common foci of activity. Correlation between the two datasets is visible in East Anglia, London, Oxfordshire/Berkshire, Hampshire and Dorset as well as parts of Northamptonshire, Lincolnshire and York. In contrast to this the eastern Pennies, the East Midlands, South Wales and Cumbria include hoards where single finds are virtually absent. The larger hoards tend to be in the south and west of the country away from the densest single find areas with the largest from Beauworth (Hants.) and Oulton (Staffs.). The shifting hoard patterns in the northern earldoms and the clustering of finds around York (*c.*1069-75) have been plausibly linked with the uneasy conditions brought about by the Norman advance and the putting down of northern rebellions in 1069 and 1070 (Thompson 1956: xxv: Dolley 1966: 39). The PII hoards are better aligned with the single find distribution (Map 3.25). The clear withdrawal from the more marginal areas of the north west and north-west Midlands where PI hoards were found is of note as is an overall contraction in the size of hoards. A hoard from Milford Haven (Pembs.) marks the easternmost find. The 26 PIII hoards (which almost entirely comprise Stephen's first type)[56] are more widely distributed than PII with examples from Sheldon (Derbs.) and Prestwich (Lancs.) populating central and north western areas (Map 3.26). There is cluster of small hoards to the south-east of London and a number of larger examples (201-500 coins) in Lincolnshire, Nottinghamshire and Leicestershire.

This brief introduction has shown that in some areas PI-III coins are more likely to be hoarded than lost as single finds. This suggests two things; that single finds are not a certain indicator of the lack of currency in a region, rather it is the conditions which generate coin-losses that are absent. The second observation, that in areas without a single-loss pattern hoards tend to be larger, is an important one and may reflect a more uneven distribution of wealth in economies lacking developed urban-rural interaction.

[56] Two large hoards dated to the reign of Henry II include Stephen's coins (Awbridge and Wicklewood) but these are omitted here.

3.2 Regional distributions and key assemblages

By focussing in on more detailed regional distributions this section draws out some of the key chronological developments in the spread of coin-use over Phase A, focusing on the interrelation of the single finds evidence, hoards, topography and networks of communication and contact. This analysis is supported by comparing selected site assemblages and developing ideas of geographical expansion and site function. Figure 3.14 breaks down the data by region and county, these figures will inform the following discussion. Over PI-III the regional coin totals show varied patterns (Figure 3.15) In the North, East Anglia, South East and South West there is incremental growth in total finds indicating increasing coin-use over time. In East Anglia the expansion in PIII is well beyond any other region whereas in the South West PII is similar to PIII. The East Central and West Central regions display opposite traits in PII which is low in the former and high in the latter. Displayed in an alternative manner this same data (Figure 3.16) highlights a fairly uniform pattern of proportions of coins of each period with the only significant divergence coming in the North which has the greatest proportion of PIII, probably a consequence of its later adoption of coinage and the impact of minting beginning in Scotland.

The key assemblages mentioned in the text are concentrated in Yorkshire, Lincolnshire and East Anglia (Map 3.27). Beyond this are sites limited to the southern assemblages from London, Lewes and Winchester.

3.2.1 Northern England

Modern farmland in this region is heavily constrained by topography with the highland areas of the Lake District, Pennines, North York Moors and Cheviots focusing historical settlement activity into the Vales of York and Pickering, Holderness Plain, Tees Valley and the Lancashire coastal zone. In PI finds are scarce despite the presence of the mints at Durham and York (Map 3.28). The 18 finds come predominantly from North and East Yorkshire with a notable cluster in York itself and the fertile river valleys of the Derwent, Ure and Tees. The hoard evidence pushes the limits of coin engagement beyond that of single finds west into Cumbria and West Yorkshire but is also heavily focused on York

(Map 3.29). Growth, from 5.1% in PI to 6.2% in PII, is seen, geographically centred on East and North Yorkshire (Map 3.30) with the East Riding yielding the greater number of finds (48%). Visible is a shift in the focus of sites yielding coins to the east of York, particularly along the route of the road from Brough to York while the first Cumbrian finds appear. Into PIII coin finds increase in overall numbers (48, 8.8%) and in their distribution (Map 3.31). While North and East Yorkshire continue to account for the majority of northern coins (41.7% and 37.5%) Durham (4), Northumberland (2), Lancashire (1) and Cumbria (2) are represented indicative of the extension of coin-use beyond traditional limits. Hull and Beverley in the East Riding grow in significance while the increase in finds from the Vale of York suggests that coin-use was developing in line with more economically developed centres in the south.

The general lack of finds in the northern region is mirrored in the small number of site assemblages of five or more coins. The region itself shares a similar stepped profile to the national mean (Figures 3.17, 3.18a) although PIII is more strongly represented than PI or PII showing later development. The York profile is the reverse of the regional mean with 60% of the finds from PI followed by 30% in PII and 10% in PIII, whereas the rural assemblage from Market Weighton (3.18b) consists of coins of PII and PIII in equal number but none of PI. Sixteen coins from two sites is not sufficient to make any sweeping generalisations on monetization, however York's early dominance and coin loss at Market Weighton from PII serve to highlight the low level of engagement with coins in the region outside the major towns. Population levels were low even before the harrying of the north by William I in 1069-70 and this appears to have stunted the region's ability to develop a monetary economy in PI and II other than in the commercially important urban centres like York. By the end of Phase A distributions suggest a greater availability of, and confidence in, coinage, at least among those settlements tied in to the principal road and river networks in the Vale of York and East Riding.

3.2.2 East Central England

The topography of this region is largely lowland with only the Chilterns in Bedfordshire, the Jurassic Ridge in Leicestershire and Northamptonshire and the edge of the peak district in South Yorkshire rising over 150m OD (Richards *et al* 2009). In PI the region has a scattering of single finds with notable concentrations in areas of Lincolnshire (47.9%) and Northamptonshire (9.6%) but with all counties represented by at least one coin (Map 3.32). Lincoln is an important centre and there is a strong correlation with the major rivers (Nene and Trent) and parts of the road network but not consistently across the region as a whole. In PII and III there is continuity at several locations, particularly at Donington in south Lincolnshire and Caistor and Horncastle on the Wolds, but also at the urban centres of Lincoln and Newark (Maps 3.33 and 3.34). Elsewhere the counties maintain a similar percentage share of coins although Bedfordshire, Nottinghamshire and South Yorkshire build over the phase at the expense of Leicestershire and Northamptonshire.

The regional profile diverges from the national mean in the lower number of PII coins (-5%) and uplift of PI and PIII (Figure 3.19a). Site assemblages from the region number seven and display a variety of profiles (Figure 3.19a-h). Doncaster and Lincoln are similar to the regional mean but show reduced PII finds and, in the case of Doncaster, is high in PIII. The sites at Caistor, Horncastle and Stow display a contradictory pattern with higher numbers of PII coins (50%-100%) perhaps indicating growth in coin-use among communities along the western edge of Wolds later than in the towns.

3.2.3 West Central England and Wales

Topographically, western central England is generally low-lying ground below 100m OD. The highest ground, above the ploughzone at over 300m OD, is found in Derbyshire, eastern Cheshire and northern Staffordshire while in Wales the majority of land is above 150m OD, with a band from Snowdonia to the Black Mountains, above 300m OD. Three major river systems; the Severn/Avon, the Trent and the Dee/Gowy are important landscape features. Urban settlement is most dense around Liverpool and the West Midlands (Birmingham, Wolverhampton and Coventry). The regional share of the Phase A

national assemblage is just 5.6%, lower than all other regions bar the south west. In PI finds are extremely limited (2.6% of national assemblage) with singles or pairs of coins in most counties and the majority of finds from the southern half of the region (Map 3.35). The exception is Worcestershire in which six finds are clustered in an area south-east of Worcester between the Severn and Avon rivers and close to the route of a medieval road running between Ripple and Tewkesbury. In PII the region accounts for 7.3% of the national finds with the focus shifting to several sites east of Warwick and the Bristol area, while Derbyshire, the Hereford area and parts of Wales see minor growth. The PIII distribution shifts away from Warwick to south Worcestershire and north Gloucestershire, a development which can be plausibly attributed to the presence of Matilda and the Angevin party throughout the civil war period and assiduous reporting of these finds as rarities. Hoards are more widely distributed than the single finds in the north of the region and Wales. The profile in this region (Figure 3.20a) differs from the national mean in the higher proportion of PII coins present, interestingly this pattern is the opposite seen in the previous region. No assemblages of sufficient size are yet known from excavation or metal-detecting highlighting the limited nature of coin-use at this period.

3.2.4 East Anglia

East Anglia consists of low-lying land below 100m OD except for a small area of Cambridgeshire and Suffolk where the Chilterns rise to over 100m OD. Outside of the county towns and parts of the coast there is little urbanism. The regional share of the assemblage is the highest in the dataset at 38.9% and shows small incremental growth between PI and PIII (Figure 3.14). The PI distribution is dominated by Norfolk (53.5%) with Suffolk and Cambridgeshire each representing around a fifth of the finds. Within these counties are clear patterns. In Norfolk the finds are mostly in the south west of the county with Thetford acting as a major focus for finds while on the Cambridgeshire-Suffolk border a cluster of sites is visible and a number of individual find-spots in Cambridge could relate to the presence of the EMC locally (Map 3.38). There is a strong correlation, both in terms of find-spots and volume of material between the hoard and single find evidence. In PII there is a slight shift in the finds dynamic in which the overall share of Suffolk and Essex

increases at the expense of Cambridgeshire and Norfolk however the latter still accounts for 46.8% of the sample. The pattern of Norfolk finds subtly shifts from an emphasis on the south-west of the county to the east and north-east, particularly within a 30km zone around Norwich and a cluster of sites on the coast near Thornham (Map 3.39). The Carleton Rode hoard of four coins is the only example among a group of sites between Norwich and Thetford. In Suffolk the area north of Ipswich and Sudbury becomes active, particularly along the route of a possible Roman road. Cambridgeshire and Essex show continuity from PI. In PIII there is a significant jump in finds numbers, felt most keenly in Norfolk and Suffolk. Coins are found more widely than in earlier periods (Map 3.40) and come from sites where both PI and PII finds have been made. A stretch of coastal plain in eastern Suffolk sees significant finds for the first time while on the Cambridgeshire-Suffolk border finds numbers intensify.

The profile of the region matches the national mean with no consistent pattern among the nine assemblages (Figure 3.21a-j). Dunwich, near Bury St Edmunds and Stoke Ferry are close to the regional mean, while sites like Norwich and Thetford show an early peak and others like Bottisham and Great Wratting are high in PII. The Castle Acre finds are dominated by PIII coins but this is clearly to be associated with the phase of building at the site (Rigold 1977: 67). A split between urban and rural sites is again visible here suggesting that coin-use was contingent, in some manner, on an interlinking network of contact between urban and rural markets.

3.2.5 South-Eastern England

In the south east the North and South Downs – traversing parts of Kent, Surrey and Sussex – rise to over 150m OD separating the Thames Valley from the Weald and Hampshire Basin. North of the Thames in Hertfordshire the Chilterns rise to over 150m OD. Urban settlement especially in Greater London and the coastal zone reduce the ploughzone significantly, masking a large area of medieval rural activity and severely limiting distributions in the Thames Valley. The region accounts for 25.8% of the Phase A finds with the majority coming from Kent (24.9%), Hampshire (17.5%) and the riverside sites of

London (22.6%) thanks to the inclusion on EMC of the Norman coins published by from Billingsgate, Thames Exchange and St Peter's Hill (Stott 1991) (Figure 3.14). The PI distribution is wide with east Kent and the Wallingford area adding to the London finds (Map 3.41). Elsewhere coin finds are strongly associated with important medieval towns such as Winchester and Southampton as well as the key communication routes (Watling Street, Thames Valley). The hoard evidence generally derives from the single find zone. Coins of PII are generally more widespread, pushing the distribution towards the East Sussex coast, Romney (Kent) and Guildford (Surrey) while contracting in Oxfordshire (Map 3.42). The regions south-western periphery displays increased activity around Winchester and we also see the first Isle of Wight find.[57] The six small PII hoards are largely consistent with the single find distribution. The fact that growth in finds of PIII is not as marked as witnessed in other regions may indicate that coin-use was already fairly well established from PI. The PIII finds share some common foci with PII (Map 3.43). London, Winchester and the East Sussex and east Kent coasts remain prominent no doubt bolstered by coastal trade, while new sites at Ashford and Gravesend (both Kent), Shoreham (Sussex) and north of Hertford indicate an expanded circulation zone for coins.

The South Eastern regional profile shows the 'stepped' shape as the national mean but does not accentuate PIII in the same way, with less than 10% difference between PI and PIII (Figures 3.14; 3.22). Coin-use was well established in parts of the region influenced by the major towns and ports linked in to international trade networks especially with France and the Low Countries. The regional assemblages are dominated by the London sites and perhaps surprisingly only Lewes and Winchester have provided a sample large enough for inclusion. The London sites are a mixed bag with two adjacent sites, Thames Exchange and Vintry, revealing very different patterns, the former starting strongly in PI before tailing off, the latter peaking in PII. St Peter's Hill is dominated by PI with minimal later coins while the Thames foreshore has fewer coins in PI but builds into PII. Deciphering the complexities of difference is a difficult task bearing in mind the incomplete nature of the finds record but the likelihood is that these profiles represent a mix of fluid urban markets

[57] Excavations at Carisbrook Castle did yield two coins of William I and two of Henry I showing an early phase of coin-use at the military and administrative centre of the island (Robinson 2000).

closely linked to maritime trade. At Winchester the pattern is similar to the regional mean indicating an established pre-Conquest economic hub where coinage was already in use (Biddle 2012; Rees *et al* 2009) and built gradually over the Phase. Lewes provides something of a contrast in the absence of PI coins but has the tail profile of the mean. The disruption in the aftermath of the Conquest may have stunted the economies on the south coast.

3.2.6 South-Western England

In the south west Dartmoor, Exmoor, and Bodmin Moor rise to over 150m OD while the Quantocks and Mendips in Somerset, the Downs and Blackdown Hills in Dorset and Salisbury Plain in Wiltshire reach similar heights. Coins in this region account for just 4.4% of the national assemblage, reflecting something of the population level but moreover the absence of any strong tradition of monetization (Table 3.14). The River Parrett in Somerset marks the westward limit of coin finds (barring a few exceptions) with more than two thirds of the sample coming from the easternmost counties of Wiltshire (34.5%) and Dorset (37.9%). In PI the 13 finds come almost entirely from Dorset (Map 3.44) but in PII coin-losses across a large area of Wiltshire indicate expansion (Map 3.45). The PIII pattern regresses to the PI picture and includes the single hoard from the region in Phase A (Map 3.46). Despite its peripheral position the regional profile shares some similarities with the national mean (Figure 3.23) despite starting weakly in PI.

3.2.7 Summary and interpretation

The analysis in this section has focused on regional and site-based comparisons. In quantifying and contrasting regional and county assemblages it is now possible to track broad regional trends in coin-use. The presence of a mint in a town suggests coin-use and yet single find patterns do not generally cluster around mints. The clear division of finds between east and west is more than the result of detecting habits and reflects coin-use stimulated by a combination of population levels, links to inter-regional trade and communication networks and centres of wealth.

The uneven geographical coverage and small size of some assemblages makes interpreting patterns of coin-loss across the country difficult. However the distribution does support the idea of an east-west difference in levels of monetization within which are complex and sometimes contradictory assemblages. Profile comparison has shown that towns enjoyed a developed coin-user base in PI without exception, suggesting a focus of coin-use linked to the urban economy. This is unsurprising but parish profiles like that from Horncastle (Lincs.) suggest levels of variation which have yet to be explained.

3.3 Denominations – sites, chronology and distribution

As already noted the penny was the only coin struck under the Normans although a small issue of round halfpence did appear under Henry I. Assessments of coin-use have until now been informed by the hoard evidence and thus limited to looking at coins intentionally accumulated and deposited.

3.3.1 Period I

The denominational profile shows the penny dominant at 85% followed by cut-halfpennies (11%) and cut-farthings (4%) (Figure 3.24). Single finds are the only source which allow the dynamics of denominational structure to be understood as it relates to the user. Hoards rarely include fractions in proportions reflecting general currency and are limited in number and geographical coverage. They also suffer from poor recording before the last century.[58] Despite the growth in metal-detecting since the 1970s more PI hoards were recorded 1825-75 (12) than 1950-2000 (9) (Figure 3.25) with hoards in general terms of limited size (Figure 3.26). Over a third of hoards (37.1%) fall into the 2-10 coin range while 57.1% comprise between two and one hundred coins. This leaves us with limited material from which to work but at the same time the hoard size suggests something about access to wealth not limited by the volume of coin in circulation. Small hoards, such as the Maltby Springs (Lincs.) which consisted of five pennies, might have reflected about a week's earnings (Gannon and Williams 2001:162).

[58] Throughout this thesis the hoards forming the appendix are only included if they comprise post-Conquest coins even though many hoards terminating with coins of Edward the Confessor and Harold II would have been deposited immediately after the Conquest.

Eight better-recorded hoards are detailed in Figure 3.27.[59] Striking is the general absence of fractions which accounted for less than 0.5% in the largest hoard of the period from Beauworth (Hants.). The hoards from St Mary at Hill (London) and Scaldwell (Northants.) mention the inclusion of fractions with the remainder composed exclusively of pence. This limited selection makes clear that fractional coins were actively excluded from stores of wealth.

Where hoard evidence is limited for assessing the diversity of coin-use excavated sites can provide crucial evidence. As previously noted few sites have produced statistically viable numbers of coins other than London sites like the Vintry, Billingsgate and Thames Exchange. These are compared with finds from other urban centres and rural finds (Figure 3.28).[60] The Vintry profile is remarkable for the high number of cut-halfpennies (81.8%). Other London sites do not show such an extreme fractional bias (68% pennies) and comparison with other towns (76% pennies) and rural communities (85% pennies) shows the increasing penny pre-eminence away from the urban centres and London in particular. This suggests hierarchies in which the practical uses of coins were contingent upon the environment. In urban contexts the availability of coin was greater due to the presence of mints and the role of towns as centres of trade and commerce. It has been posited that the circulation of a greater proportion of fractions reflects a more advanced economy (Bateson 1989: 183). Extrapolation of this site-based hypothesis to the national dataset would indicate that in PI pennies were dominant at all but exceptional urban sites like Vintry. Mapping the finds (Map 3.47) shows that pennies are most widely dispersed, followed closely by cut-halfpennies in the east and south with cut-farthings mostly confined to those areas of greatest coin density in East Anglia and London. The highest density of fractions is in western parts of Norfolk and Suffolk and south Cambridgeshire where finds reporting is strongest. It is also telling that hoards which include fractions are found only within the area of fractional single finds. Sites like Meols remind us that coin-

[59] Frustratingly many of the nine hoards recovered since 1975 are too small to be useful here.

[60] The London sites were only partially excavated and the finds were made on the spoil from the sites after it had been removed to dumps in Kent and Essex (Kelleher and Leins 2008: 168). Their use is in providing an urban comparison for what is essentially a rural dataset.

use could be diverse away from the core of metal-detector finds in East Anglia and in regions with few other finds given the appropriate conditions.

3.3.2 Period II

In PII fractions begin to make an impact growing from 15% in PI to 23% (Figure 3.29). This minor shift is good evidence for diversification in coin-use both in terms of *who* could use coins and in *what contexts* coins were being used. As a gauge of value a household servant's daily wage in 1130 was about 1*d.* a day (Britnell 1996: 30). The introduction of a round halfpenny is a clear indicator of the official acceptance that small coins were a necessary requirement of the marketplace – although at this time it was not successful.[61] Henry I hoards are even more scarce than those of PI (17 compared to 39) and suffer similar issues of recording seen in PI. Although some finds were made in the nineteenth- and early-twentieth century, the majority (64.7%) have been found since 1950 (Figure 3.30). Hoard size is also much reduced with over three-quarters (76.5%) of less than 50 coins and the largest from Lincoln (Malandry) of 744 coins (Figure 3.31). This is a poor comparison with the *c.*12,000 in the PI Beauworth find. Fractions continue to be actively excluded from hoards in PII (Figure 3.32). Three of the six hoards listed here included small numbers of fractions from 4% in the Knaresborough area hoard to 1.3% in that from Mansfield Woodhouse.

Comparison of the metal-detector and site finds reveals a significant urban-rural dimension. Fractional coins are again down at Vintry but not as intensely as in PI (Figure 3.33). Within the fractional sample the farthing element grows. Other London sites also display renewed influence of smaller coins where fractions increase to nearly half the sample. But it is among finds from the amalgamated non-London urban sites that the biggest swing occurs. Fractions account for more than 55% in these locations, mostly through an increase in halfpennies. At this period the changing dynamic in urban contexts had yet to filter into rural areas. The denominational distribution (Map 3.48) shows similar patterns to PI with a new area for finds around Bristol and up to Warwickshire. Cut-

[61] Known mints are wide ranging and include Hereford, Lincoln, Norwich, Oxford, Sandwich, Wallingford, Winchester and York.

halfpennies are limited to the east in the Vale of York, Lincolnshire, East Anglia and the South East with outliers in Cumbria, Cheshire, Warwickshire and Somerset. The distribution of the round halfpennies is very distinctive. Every coin is within 90km of its mint of origin, suggesting limited circulation and possibly a level of mistrust which ultimately led to their discontinued striking. The cut-farthings are less well spread with clusters limited to East Anglia (particularly Suffolk), London and Kent but with outliers in Yorkshire, Lincolnshire, Derbyshire and Avon.

3.3.3 Period III

The spread of fractional denominations continues to develop in PIII. Although pennies remain most prolific (64%), the combined cut-halfpence and cut-farthings account for more than a third of losses (Figure 3.34). This growth is entirely in halfpence as the farthing total remains at the 7% seen in PII. Of interest is the different profile of Stephen's BMC 7 coins (1153-8) which are distorted in favour of fractions (52.8%). This remains difficult to explain. The quantity of fractions begins to change in PIII hoards. Exactly half of the 26 hoards were discovered after 1950 (Figure 3.35). In size they are roughly of the same order as in PII with only two, Watford (Herts.) and Prestwich (Lancs.) comprising more than 1000 coins with more than half of hoards (57.7%) comprising 100 coins or fewer (Figure 3.36). Figure 3.37 sets out a selection of better recorded hoards. Fractions are present in these eight hoards in varying quantities. By far the largest proportions are in the hoards from Linton (Kent; 27%) and Ashby-de-la-Zouche (Leics.; *c*.16%) while the others range from 4.2-6.9%. Two possible explanations obtain. If hoarders actively excluded fractions in PI and PII then does the hoarding reflect disruption to the money supply? This is certainly visible in the contraction of areas under Stephen's control and the rise of independent coin types. A second explanation regards a changed perception of cut coins as legitimate money for hoarding as their use in general currency was growing.

Comparing site finds across urban and rural sites (Figure 3.38) shows Vintry with continued heavy bias toward fractions with the penny proportion down to just 10%. Conversely the other London sites see the penny proportion grow 9% from the PII figure.

The non-London urban group comprises over 50% fractions for the first time with a significant proportion of these being irregular types which indicates the unstable nature of supply at this period. The final graph, for rural finds, shows a significant step forward in the diversification of denominations in use with fractions accounting for 38% (from 20% in PII). This graph is almost identical to the non-London urban group. Map 3.49 show a much diversified denominational distribution with cut-halfpennies in particular found in greater numbers and over a larger area of the country. These finds extend the range beyond the core area, pushing into North Yorkshire and Durham, the East Midlands, Hampshire and Dorset. Notably this is extended to marginal sites such as Hayle (Cornwall), Anglesey and Blackpool (Lancs.). Cut-farthings display a wider distribution than in PII and become prevalent in Lincolnshire and North and East Yorkshire, however this is the limit of the distribution.

3.3.4 Summary and interpretation

In analysing the corpus from the perspective of denomination this section has drawn out a number of points which add to our understanding of coin-use and the changing role of money in this phase. This section has attempted to explore the role of fractions through observations of their occurrence in hoards, distribution and association with different site types, essentially developing a paradigm of urban-rural interaction and influence. Three themes have arisen. Turning first to the hoard evidence we may suggest that hoarders viewed coins in different ways based on size and value. There is an obvious practical sense to this but beyond this functional explanation might also have been an intangible value placed on the wholeness of the coin (image, integrity) dictating the theatres they could perform in and their value in the minds of hoarders. By PIII however fractions are more commonly hoarded which suggests either that they had become a more acceptable monetary object, or that demand had outstripped supply and any coin (of sufficient silver content) might be hoarded. This is significant in the context of reduced circulation in the civil war period. Accompanying this change in the hoarded coins was a more rapid acceptance of fractions in everyday transactions. This is manifest in their occurrence at town sites in considerable numbers in contrast to the rural sites, however there is clear

evidence over the Phase that rural communities came to reflect the dominant regional urban profile more closely.

3.4 Mints

Norman coins were struck in at least 80 towns in England and Wales with this information neatly inscribed on each coin's reverse. In this way it is possible to explore questions relating to the life of a coin between minting and final deposition. Consideration will also be given to quantifying production relative to source.

Period I

The PI coins have a high level of mint attribution (84.1%). Fifty-six are represented with only minor issuers absent (Figure 3.39; Figure 3.40).[62] Between 20 and 26 coins come from Canterbury, Lincoln, Thetford and Winchester with London (89) more than twice as prolific as second placed Thetford. The next tier of mints with 10-19 coins includes Colchester, Norwich, Southwark, Wallingford and York and is followed by the large group of forty-six mints with ten or fewer coins. Comparing the PI evidence with a similar corpus of single finds dated 973-1086 (Figure 3.41) that, while still reflecting the pre-Conquest system of mints (with London as the main producer supported by a network of local centres), there are some differences. It is telling that of the northernmost mints Lincoln and York move down the ranking and Stamford and Chester moves off entirely. This could be linked to the post-Conquest harrying of the north. Elsewhere London is still dominant while all the other southern mints move up even if, like Winchester (4%), its share of the total pool is the same.

Regression-style analysis has been used effectively in numismatic study for suggesting production centres of uninscribed coin types (Metcalf 1993-4; Leins 2012). Given that the source of coins is known in the current data it is possible to assess the distances coins travelled before loss and therefore suggest something about the nature of the circulating medium. Figures 3.42-3 plots the distance travelled by all PI coins from their source mint

[62] Coins from mints with uncertain attributions such as 'DELCA' are excluded from this analysis.

to place of loss. The graph is rather erratic over the first 85 miles with high and low points such as the 3% of coins lost between 5-10 miles and the over 7% between 50 and 55%. Grouping the sample into 25 mile increments allows a clearer observation of the pattern. Expressed in this way the data reveals coins were lost in roughly equal quantities (*c.*20%) at 25, 50 and 75 miles distant. After this the proportion begins to diminish significantly down to 16% at 76-100 miles and 9% between 101-125 miles before dropping to 4% and gently tailing off after this. Hidden in this analysis is the role of individual mints in skewing the data. For example London coins travel much further than those from Thetford. Figure 3.44 shows that 70.4% of Thetford's coins within 50 miles compared to the London figure of 40%. Moving to the 51-100 mile bracket this figure changes with Thetford at 29.6% and London coins much more dominant at 49%. This highlights the possibility that mints were linked into local, regional and national networks of trade and communication as well as it representing the markets from which goods were coming into London. Observing how this trend develops over time will be key to understanding the effects of centralisation on monetization.

Period II

Coins identified to mint stand at 68.3% and come from 47 of the 53 mints active under Henry I. Figures 3.45 and 3.46 detail the proportions of coins from each mint. Coins from London grew to 31% increasing its dominant position. Under London three tiers of mints are present. The first group, comprising Canterbury, Lincoln, Norwich, Southwark, Thetford and Winchester, ranges from 11-26 coins (3-10%); the eleven second tier mints comprise 4-10 coins (1-2%); while the final group mints each account for less than 1% (1-3 coins) together make up 17% of the total (Figure 3.47). Comparing mint rankings from PII over PI shows a subtle shift in which London's increased proportion of the national share comes at the expense of mints at the lower end of second tier production like York (Figure 3.48). Winchester and Norwich are the other beneficiaries, both doubling their share of the national output. This is important as it comes in a period when overall mint numbers are in decline for example in type 15 22 mints were active.

The distances travelled by coins before lost proved interesting in PI. In PII there is a shift with a fairly steady decline in finds with distance from source (Figures 3.49-50). Compared with PI slightly more coins are p,resent within the first 25 mile radius and a similar, if slightly lower, figure is seen in the 26-50 mile bracket. It is in the 51-100 mile radius that the PII totals decrease, significantly so in the first half of the range. Over 100 miles distant PII has slightly higher proportions as PI. A quarter of coins were lost within 25 miles of their mint, nearly a fifth from 26-50 miles while the next three brackets are almost equal. It is difficult to suggest with certainty what this means but the impression is that coins in PII circulated at longer distances than in PI. Focusing in on a the examples of London, Norwich and Winchester shows some variability (Figure 3.51). The London and Winchester patterns are almost identical, with *c*.40% of losses within 50 miles, *c*.32% 51-100 miles, *c*.20% from 101-150 and *c*.5% over miles from source. By comparison the Norwich coins are all within 50 miles. This may be a result of the dominance of East Anglian finds in the dataset over-representing the local mints, but is more likely an indicator that Norwich served as a source for its region.

Period III

It has been shown that during the turbulent reign of Stephen control of minting became fragmented and types II and VI were limited to the south and east. Exploring the dynamics of mint output and regression within the types of this period will be important for assessing the changing role of the mints and their coins. Due to the limits of the data in terms of finds the discussion will be limited to Stephen's substantive types.

BMC I

Thirty-two of the known mints are represented in the finds (Figure 3.52). Dominant are London issues (21%), closely followed by Norwich (15%), then Canterbury (8%) and Lincoln (7%). The remaining mints each have five coins or fewer; York (5%), Bury St Edmunds, Wilton and Exeter (4%), Hastings, Ipswich, Thetford and Warwick (3%), Lewes, Oxford and Southwark (2%) and the remaining 17 mints with 1% (Figure 3.53). Statistically BMC I is the only viable PIII type to consider in ranking terms (Figure 3.54). London remains at the

top but with a reduced share of the total while Norwich is better represented. Southwark and Oxford drop out of the top ten (although Oxford's 2% share is the same as in PII) indicating that the smaller mints benefitted from London's decline as opposed to the second tier operations at places like Lincoln, Winchester and Canterbury. A one-fifth share for London compares favourably with coins in the larger hoards of the period.[63] Of the 393 BMC I coins in the Watford hoard 92 (23.41%) were London types while Norwich accounted for only 6.11% of the total despite being the third most prevalent mint behind London and Winchester. Forty-five London coins were in the South Kyme find (18.07%) second only to coins of Lincoln (19.28%) which is the major local mint. Further north the hoard from Prestwich tells a different story with London (10.24%) ranked third behind Lincoln (16.62%) and Chester (16.09%). Where hoards were assembled dictates composition but the major mints, like London, made up a consistent proportion, between 10-20%, of the national circulating medium. More hoards of the period are required to explore biases in the mint profile of hoards.

BMC II and VI

Only three mints for type II are unrepresented as single finds (Figure 3.55). London's dominance is extended in type I (41%). If we consider that the loss of authority over more productive mints such as Lincoln, Winchester and York this is understandable. Although still the second most prolific mint Norwich falls away and only the Norfolk mints of Thetford and Castle Rising and Sandwich in Kent are represented by more than one coin. The paucity of hoard evidence precludes a detailed comparative analysis but of the 35 identified coins in the Linton find the top mints represented are London (10), Norwich (5), Canterbury, Ipswich and Pevensey (3), which broadly follows the single finds. The type VI coins are shared more evenly among the mints (Figure 3.56). The five London coins (17.86%) are closely followed by those from Norwich and Castle Rising (14.29%), Dunwich and Bury St Edmunds (10.71%), Buckingham, Eye and Thetford (7.14%) and lastly Bedford, Colchester and Lewes (3.57%). The East Anglian bias is striking with Norfolk and Suffolk mints alone accounting for 64.29%. Obviously the mints producing the type were limited

[63] The find from Ashby-de-la-Zouche, Leics. comprised around 450 coins but only eight were identified, no finds other than the three detailed above have more than 200 coins in total.

to south-east however this dominance is suggestive of loss close to source and therefore limited circulation time and velocity. Detail for coins in the two hoards does not survive.

BMC VII

The striking fact of Figure 3.57 is that London coins account for just 6% of coins, equal to Bedford, Dunwich and Salisbury. Norwich is best represented with 24% – some way ahead of Lincoln at 12%. At the end of the scale represented by just one find, are 8 mints, including the previously well represented Winchester. Just two hoards are known that were deposited within type VII but these are small all ill recorded. A later find from Wicklewood (Norfolk) did include 29 coins of the type and heavily favoured the local East Anglian mint of Norwich (37.9%) with London in second place with 20.7% (Kelleher 2011: 1497).

The distance travelled from mint to deposition by type I and VII coins are plotted as Figures 3.58 and 3.59. A quarter of type I coins were lost within 25 miles of the mint, after which there is a steady decline suggesting coins were used and lost within their locality more than had been the case in PI-II. The type VII profile is rather different with coins lost in almost equal measure within all distance brackets up to 125 miles. Although this is a small sample it suggests the reinstatement of long-distance trade networks which had undoubtedly been disrupted by the civil war.

3.5 Discussion

This chapter has approached the data from a range of perspectives in an attempt to synthesise the evidence for coin-use in this early period. From this, it is possible to draw a number of conclusions. Firstly, the development of coin-use was generally constrained by the available currency which remained at a low level for much of the Phase. Spikes in production, like those seen in the single finds for William I BMC 8 and Henry I BMC 10, must have provided a welcome boost to the circulating pool prior to the growth in losses seen in PIII. The growth in PIII losses-per-year is curious given that the minting and circulation zones were shown to have contracted in the civil war period. One might

postulate that the networks of exchange in which coins operated were local or regional and thus daily transactions remained largely unaffected at least within those areas remaining under Stephen's control.

Mapping the distribution of coin finds in this phase presented a number of issues of bias given the reliance on the EMC data. Despite this it was possible to establish an idea of the core areas of coin-loss in England and Wales and track its geographical spread over time. Map 3.50 summarises the PI pattern and reveals the east to dominate coin-loss, particularly East Anglia and to a lesser extent Lincolnshire. At this period production was dominated by the eastern mints with their links to continental silver supplies however, the plethora of productive Kentish mints does not impact the South East in terms of coin finds. In other areas it is the principal towns like York and Winchester that sit central to the region's prosperity. A similar pattern obtains as we move into PII (Map 3.51). The core zone of East Anglia remains dominant, while the Lincolnshire density extends over the Humber and up to York. East and North Kent, the area around London and into parts of Buckinghamshire and Northamptonshire is more productive. The major new growth however, comes in the Severn Valley where coin-loss increases significantly over PI. In PIII the density pattern appears to very much mirror the circulation zones seen amid the breakdown of control of minting in the civil war (Map 3.52). Finds in the southern and eastern areas under Stephen's control are most prolific; with Norfolk, Suffolk, Cambridgeshire, Bedfordshire and Hertfordshire being most dense; the zone south of this area is less dense with most of Kent and Sussex with minimal finds. In Lincolnshire and East Yorkshire finds are well represented and in parts of North Yorkshire and Durham finds are fairly widespread. In the south Hampshire and Dorset are well represented and a similar pattern emerges in a zone around Gloucester. In most cases the areas of finds are those with the most prolific mints in BMC I augmented by the local irregular issues from York in the north, Southampton in the south and the Angevin party in the West Country.

There are conclusions that can be drawn about monetization of the economy. The profiles of coins for different sites suggests strongly that the tradition of coin-use originated in

major towns like London and York and was only transmitted into rural areas in response to this. There is a strong correlation in many areas between the principle communication routes, like the route from the Humber to York which future research must conduct detailed studies on, as well as towns like Winchester whose hinterland developed in response to the increased monetization of the area surrounding the urban zone. These examples suggest that some rural transactions were being commuted from barter to cash at an early stage. There is a small but consistent drop in the value of coins lost over the Phase suggesting a minimal level of diversification of use, as fractions became more ubiquitous. This phenomenon was especially a feature of urban sites and thus reflects the advancement of transactions of small size in the marketplace.

The often-contradictory evidence of single find and hoard distribution is of special interest. The patterns of distribution for these two types of finds often do not correlate. The zones where single finds are discovered frequently diverge from those where hoards are to be found and importantly show that the absence of coin in a region cannot be inferred from single finds alone. Instead it is the uses to which coins are being put and the environments in which coins change hands that is reflected. The decision to hoard a coin carries with it a set of values attributed to it by the hoarder which mark it out as different from coins intended for use in other contexts.

CHAPTER FOUR

MAPPING MONETIZATION IN ENGLAND AND WALES II

PHASE B: IMMOBILISED COINAGE 1158-1279

Introduction

The period between Henry II's introduction of the Cross-and-Crosslets coinage in 1158 and his great-grandson Edward I's replacement of the Long Cross coinage in 1279 witnessed unparalleled change in the structure, personnel and institutions of the English currency. Following the approach in Chapter 3 this chapter explores how single finds can be used to interpret how developments in coin production affected their circulation and use in the population at a key stage in the evolution of currency. From around 1168, central to the time-scale covered here, silver deposits at Freiburg in Meissen began to be exploited with such vigour that it shifted the balance of medieval European coin production for the next century and altered how coinage operated within society on a continental scale (Spufford 1988: 112). By analysing patterns of distribution and loss it is possible to map the adoption and spread of coin use at a national and regional level, and to gauge the social and economic effects the twelfth century boom in silver supplies had on coinage. The hypothesis that the growth in silver supplies generated the ability of states to issue more coins, and thus more coins were then available to circulate among the general population is tested.

4.1 Phase B. Immobilised coinage (1180-1247)

The three coinage periods grouped together in Phase B differ from the previous Norman *renovatio* system and the reformed currency after 1279. The common thread shared by these three 'coinages' is their immobilised nature, where a static design continued throughout each period, abandoning the production of new types at frequent intervals and instituting longer-cycle circulatory systems. The effect of this change on both the physical coins and the business of production was profound and challenged numismatists to devise classifications based on the minutiae of changes in the style of busts, punches and lettering as well as the appearance of moneyers' names across types, creating

classifications that would have had no significance for the men who made the coins. Although new to England, immobilised coinages were commonplace in France and Italy where the devolution of minting rights to magnates, ecclesiastical institutions and towns had created nebulous clusters of coin types with common designs which remained unchanged for a century or more (for example Maine and Anjou in France or Lucca in Italy). It seems probable that the familiarity Angevin rulers had with immobilised currency in their continental domains made it easy to adopt in England (Cook 2006: 626).

A key feature of the three re-coinages covered here was the wholesale withdrawal of the previous issue and replacement with a new type, a process estimated as taking about two years (Archibald and Cook 2001: 70). Two aspects of the currency are made explicit from the hoard record – the negligible carry-over of coins from one period to the next, and the appearance of foreign coins, most commonly Scottish, Irish and Continental pieces in the English style. The hoard evidence overwhelmingly supports the efficiency of the recoinage revealing negligible carry-over of coins from Cross-and-Crosslets into Short Cross hoards, and Short Cross into Long Cross (Figure 4.1). A hoard from Cwmhir Abbey (Powys), composed entirely of Norman deniers, proves the exception to the general rule. The Cwmhir find was clearly not drawn from general circulation and has been linked with Welsh bowmen in the Angevin armies (Cook 1999a: 239). Another hoard, from Wicklewood (Norfolk), stands out as aberrant with over 70% of coins of Henry I and Stephen but other factors regarding its composition such as the disproportionate East Anglian mint bias and the presence of a small but significant component of bent coins mark this hoard out as not reflective of general currency (Kelleher 2011: 1497). Evidence of carry over in PV is limited to the Framlingham hoard which includes a single cross-and-crosslets coin (Allen 2012a: 470).[64] Given that 7% of hoards of Phase B contain earlier coin and that within these hoards account for 2-5% of the total, we can confidently assume that single finds were lost within their validity period.

[64] A nineteenth century Short Cross find from St Thomas's Hospital was reported as including Cross-and-Crosslets coins but these were possibly intrusive (Allen 2012a: 470).

Phase B (Figure 4.2) sees a marked rise in single find numbers in PV. The 692 PAS and EMC coins equates to a loss-per-year figure of 30.1. This rises to 47.0 in PV and 81.0 in PVI. However this table does not account for the value of the losses, for example any growth in the proportion of fractions within a sample would be masked, and so establishing the changing monetary value of the finds is important. In PIV the value per loss is 0.78*d.*, maintaining the steady decrease in value seen throughout Phase A, and continues at 0.72*d.* and 0.65*d*. In both PV and VI the overall numbers of finds dwarf anything hitherto seen, supporting the idea that the significant growth in the quantity of silver acquired by the mints and struck into coin translated into a growth in coin use.

4.1.1 Period IV (1158-80)

In the early years of Henry II's reign (1154-1158) Stephen's last type (BMC VII) continued to be struck and was only replaced by the introduction of the Cross-and-Crosslets coinage reform undertaken by Henry II in 1158.[65] Many of Henry's administrative advances in England were precipitated by his presence in the kingdom and it was likely the occasion of his second visit to England in 1157/8 that arrangements for the recoinage were made (Allen 2007a: 260). Although the size of the currency remained similar to that of Stephen's reign[66], the scale of the administrative changes revolutionised how coins were minted. There had been a precedent for the abandonment of the *renovatio* system with Henry I's type 15 (struck *c.*1124) but the Cross-and-Crosslets coinage not only permanently did away with short-cycle recoinages but also altered the landscape of mints and moneyers. Of nearly 100 moneyers active in Stephen's last type just nine struck in Henry's reformed coinage, and less than half of the mints (20/46) continued to be active – supplemented by nine new mints (Allen 2007a: 260-1; 2012a: 41). No English hoards of PIV terminating after Class C (*c.*1163-7) contain coins of Stephen so we can be fairly certain that by this stage the circulating medium was comprised almost exclusively of Cross-and-Crosslets coins.

[65] References to payments to moneyers in the pipe roll for 1157/8 and 1158/9 make this date the most likely (Allen 2007a: 260).

[66] Rigold's analysis of single site finds concluded that Stephen's coins were more common that cross-and-crosslets (1977: 59). This is not supported by the combined PAS and EMC data in this thesis.

The coins had on their obverse a crowned and mantled bust of the king holding a sceptre and the legend HENRI:R(EX):A(NGL) and on their reverse a short cross potent with small crosses in the angles; around the outside of the coin the name of mint and moneyer was engraved (Figure 4.3). The location of mint towns reveals a specific agenda (Map 4.1) built around an overall reduction in the number of mints, the placing of mints in towns where foreign silver was encountered through trade and the gradual elimination of ecclesiastical privilege mints. The network also better represented the currency needs of the northern counties than had previously been the case. York was the only mint north of the Humber until 1087-88 when it was joined by Durham. In PIV Carlisle (in *c.*1123) and a new mint at Newcastle (*c.*1158-63) were well placed to exploit the new mines of Cumberland (Allen 1951: xii). The coins themselves are often crudely struck, frequently on almost-square flans, so details of type and legend are often difficult to ascertain. The established classification was first published as the *British Museum Catalogue* (Allen 1951) advancing earlier work (Brooke 1927) and divided the coinage into six classes (A-F) based on the style of the bust. The typology has been slightly refined (Crafter 1998) where a limited discussion of single finds also appears. Previous research has been focussed on typological and structural issues related to production (e.g. Allen 2007a; Crafter 2008) with consideration of single finds hampered by the paucity of evidence (Crafter 1998: 57-8).

The PIV data comprised 482 EMC and 210 PAS finds of which 609 have geospatial coordinates. These derive from 265 (EMC) and 194 (PAS) individual find-spots. The 31.5 losses per year in PIV represents a small increase of nearly four coins per year over PIII[67]. The PIV distribution (Map 4.2) is in many ways very similar to that seen in PIII. The dominant areas for finds are Norfolk and Suffolk with lesser numbers in Essex, Cambridgeshire. Lincolnshire and North and East Yorkshire are well represented with increased intensification of sites along the road from the Humber to York. In the South East finds in Surrey diminish in favour of coastal Kent and Sussex, while in Hampshire coins are being recovered in greater numbers and from more individual locations. Modest growth is visible in Warwickshire and Leicestershire and in marginal areas such as

[67] using EMC figures in isolation shows a contraction in find numbers

Cornwall, Devon, Lancashire and Cumbria individual finds are scarce. The growth areas correlate with the PAS pilot counties well.

Figure 4.4 and Figure 4.5 set out the PIV finds data used in this thesis. Two-thirds are of classes A (1158-1163) and C (1163-1167) with just over one fifth from Class F (1174-80) suggesting that production peaked at the recoinage (re-minting the existing coins of Stephen into the new money), in the following four years and again in the second half of the 1170s. The single finds bear remarkable similarity to Allen's die-estimates with slightly inflated numbers in Classes A and F and a reduction in Class C (Allen 2012a: 305). As the mint network contracted there is no evidence to suggest that mint products were limited by class in their circulation (Maps 4.3-4.8), in fact even the short-duration of Class F did not limit its dispersal. Comparing the PIV single finds with several of the larger hoards we see that the currency hoards favour the most recent issue, while those interpreted as savings hoards reflect sporadic episodes of addition. (Figure 4.6) highlights the limited use of hoards for understanding circulation over complete circulation phases.

4.1.2 Period V (1180-1247)

In early 1180 Henry II's *Curia Regis*, meeting at Oxford, set out arrangements for the second recoinage of the reign. Contemporary chroniclers were adamant in their belief that the currency was corrupted by forgers (Allen 2012a: 49), a fact not fully supported by the single finds, but a recoinage also represented an opportunity for Henry to further tighten his control over the profits of coin-production (Stewartby 2009: 13). This began with the removal from office of all the Cross-and-Crosslets moneyers and their replacement by new men who would no longer be responsible for the dual role of minting *and* exchanging coins (Allen 2012a: 49). This would be carried out by royal officials directly for the king (Allen 2007a: 257). According to Ralph de Diceto, Philip Aimery of Tours assumed management of the recoinage (Stewartby 2009: 14) and is known as a moneyer on class 1 coins of London (Figure 4.7).

Over the entire Short Cross period some twenty mints were operational, with the network at its greatest extent in the 1180-2 recoinage (ten mints) and John's partial recoinage of 1204/5 (sixteen mints) (Map 4.9). The design and striking of the coins was much improved – at least in the early classes of each recoinage; the bust was now bearded with a new style of crown and was enclosed in a circular border with the hand and sceptre dividing HENRICVS R from EX in the inscription. The reverse included a voided cross with quatrefoils in the angles and the name of mint and moneyer in the outer circle. Coins of Classes 2-4 show a marked deterioration in the quality of die-engraving and striking. The partial recoinage of 1205 was authorised by a writ issued at Guildford in 1204 in response to the deterioration of the currency – particularly by illicit clipping (Cook 2001) and finds some support among the finds. Of the pre-1205 coins recorded in sufficient detail just over half are clipped (49% are not clipped, 37% have 'some' clipping, 14% have 'moderate'). The post-1205 issues are slightly better: 55% not clipped; 36% some clipping; 8% moderate and 1% heavy, suggesting a marginal improvement in the condition of the currency.

Mints were reopened or created to complete the process with a particular focus on ports and trading towns in eastern and south-eastern England. Innovation in the series saw an attempt in 1222 to introduce round halfpennies and farthings as had been attempted by Henry I in *c.*1107. It proved similarly unsuccessful. Another important development saw the mint of Rhuddlan in north Wales issue an irregular series of Short Cross coins. It was likely set up to exploit the silver being extracted from the Flintshire lead field, probably under the authority of the Welsh princes Dafydd ab Owain (1170–1195) and Llewelyn ab Iorwerth (1195–1240) (Besly 2006: 713-4).

In the Short Cross period mint output grew enormously thanks to the expansion in silver extraction at mines in southern Saxony which in turn fed the expanding coinage of Germany and diffused throughout the rest of Europe (Spufford 1988; Allen 2012a: 254). Estimates of the size of the currency in PV suggest overall growth from £100,000 in 1180 to nearly £500,000 by 1247 (Allen 2007a: 275). This is seen in the abundance of single

finds, hoards and excavated coins compared with PIV. Despite various complaints about the condition of the currency domestically, hoards from France and Germany show that English coins were garnering a reputation as the preferred coin of international trade, leading to imitation by William the Lion of Scotland (1165-1214) and rulers in Westphalia (Chapter 6). Short Cross coins have been excavated in the Latin East in Caesarea, Acre, Jerusalem, Pilgrim's Castle and Corinth (Metcalf 1995: 357-361). The classification of the Short Cross coinage was initially devised by Lawrence (1915) and consists of eight sequential types.[68]

Of the 3152 coins attributed to Period V (PV), 3089 have spatial information from 2389 unique find-spots. The growth in finds represents the greatest single difference from one period to another in the dataset. The increase in finds from PIV to PV is striking (Map 4.10). The core areas for finds such as East Anglia and Lincolnshire are densely packed, while there is a general surge in finds over much of the country. The most significant increases are visible in the south-eastern counties and a large stretch of land running from Gloucestershire to Leicestershire, but elsewhere the pattern of increased coin-loss is visible. The increase in finds from three to 89 on the Isle of Wight between IV and V is remarkable. In the western half of the country the counties north of Birmingham are better represented and the first significant body of material is present in the North West. The coastal zones of south Wales, Devon and Cornwall show a modest increase, particularly in the Vale of Glamorgan. In the extreme north find-spots remain isolated.

Figure 4.8 sets out the PV coins in the dataset. The recoinage Class 5 stands out above the others emphasising the scale of the problems of clipping and the remedial action which was necessary (Figure 4.9). This is followed by Classes 7 and 1 and then a significant drop to 6 and 4 and again to 2, 3 and 8. Figure 4.10 Class five's dominance is further enhanced but interestingly the early Classes 1 and 2 are the second most prolific while 7 is reduced to a minor role. At Llanfaes the Class 1-4 fractions showed wear levels synonymous with

[68] Research and refinement of the chronology has been carried out for types 1 and 2 by Mass (1993), for 3 and 5 by Allen (1989; 1997), for 4 and 5 by Brand (1964), for 6 and 7 by Stewart (1979; 1981), and for 7 and 8 by North (1988). The chronological divisions adopted here are those set out in Mass 2001 while figures for mints and moneyers derive from Stewartby 2009.

long circulation and loss after 1205 (Besly 1995) suggesting, at least in this part of Anglesey, that earlier coins survived to be lost after the recoinage. In 1188 and 1194 two exceptional taxes, the Saladin tithe and the ransom of Richard I, were levied on England amounting, in the latter case, to 150,000 marks. The effects of the removal of such exceptional sums overseas will have reduced the circulating stock of coins of Classes 1-3 but to what degree is impossible to state with any conviction.[69] Figure 4.11 compares the PAS data with that from Vintry, Llanfaes and the Beverley area hoard buried at the very end of PV. When viewed in this way the nature of the PAS data becomes apparent. Vintry is clearly above average in Class 1 and over time diminishes while at Llanfaes the opposite is true, starting slowly in Classes 1-3 and developing to the end of the period. PAS sits somewhere in between these two, reflecting a national average against which regional or local groupings can be tested; it seems that coin-use developed from the core commercial centres such as London as the availability of coinage grew. The Beverley area hoard is educative in reflecting the low-levels of pre-1205 coins available in currency but also how coins of the most recent classes (7 and 8) were favoured for hoarding. The distribution of PV classes is fairly uniform with no obvious patterns (Maps 4.11-4.18) suggesting that movement and mixing of coins from different classes and mints was rapid over the period.

4.1.3 Period VI (1247-1279)

By the 1240s the problem of clipping had again become acute, at least in the rhetoric of the government and was partly used to justify introducing a new, lucrative recoinage (Cook 2001: 57). A complete replacement of the old money by a new type was agreed by a grant of 1247 in which King Henry III's brother, Richard of Cornwall, would receive half the profits of the recoinage for twelve years in exchange for a loan of 10,000 marks, equivalent to £6,666 13*s.* 4*d.* (Allen 2012a: 62). The three principal mints of London, Canterbury and Bury St Edmunds were supported by a network of 17 provincial establishments commissioned in 1248 (Map 4.19). Most mints had four moneyers while London and Canterbury had six, but by the 1260s operations were centralised under just one moneyer at London, Canterbury, Bury and Durham. Production levels were high, with

[69] The 1192/3 Pipe Roll records silver from Normandy being brought to England to be struck into English coin to pay 500 marks of the ransom (Allen 2012a: 171).

an estimated 340 million pennies struck at London and Canterbury in 1247-78 (Stewartby 2009: 75) and largely reflects the recoinage of the large Short Cross issue. The wool trade and continued productivity of continental mines ensured new silver was readily available to the mints (Stewartby 2009: 72). During the course of the issue the basic design was altered several times (a key determinant in the formation of the typology) with the form of inscription, initial mark, style of bust and crown and the inclusion of the arm and sceptre all developing in use over the series. The 20-year Class 5 (1250-1270s) is subdivided into a number of sub-types which fall into phases of greater or lesser production. The sequence concludes with two very rare classes (6 and 7) which are attributed to Edward I without any change to the regnal inscription on the coins. Just one coin of each of these classes has been recorded on PAS. The Long-Cross style was influential beyond England; in 1250 Scottish coins adopted a similar reverse design and Henry's Anglo-Irish pennies of 1251 also copied the English design. On the continent imitations were struck in greater numbers than before (Chapter 6) and again we find Long Cross coins as site-finds in Corinth (Metcalf 1995: 361).

In appearance the new coins differed from their predecessors in a number of ways (Figure 4.12). A new-style crowned and bearded bust (without sceptre in Classes 1-3) was surrounded by an inscription including the regnal number of the king (at first *Terci* and later *III*) for the only time before coins of Henry VII. The reverse voided cross with three pellets in each of the internal angles was extended to the coins' edge to deter clipping with the effect of dividing the legend into four parts and thus reducing the available space for lettering causing frequent ligatured letters. The classification in use today was arranged by Lawrence (1912-15) and divides the coins into seven sequential classes and subclasses which are considered below.[70]

There is a distinct similarity between the PVI distribution (Map 4.20) and that from PV, albeit with fewer total finds. This suggests a level of continuity on coin-use between

[70] The publication of the Brussels hoard of Long Cross pennies appeared too late to be referenced in this thesis. It is anticipated that this study will significantly advance the classification and dating sequence for this series (Churchill and Thomas 2012).

periods regionally, if not necessarily on sites. Some counties' share of the regional totals diminish in PVI, notably Lancashire and Gloucestershire while in Somerset, Hampshire and the Isle of Wight the opposite is true. Regional analyses will explore this further.

The PVI coins in the PAS dataset number 2593, of which 2546 have spatial data, from 1894 individual find-spots. For ease of discussion the distributions for PIV-VI are presented regionally. The loss-per-year figure is vital in evening out the data from chronologically diverse periods. In PVI relative to PV there is a 17.7% drop in total finds, but adjusted for period length (47.0 finds per year) the PVI figure is 81.0 finds per year. This problem is explored further below. Figures 4.13 and 4.14 set out the PVI coins in the dataset. Low-level production in Classes 1 and 2 is followed by a massive rise in Class 3 representing the recoinage of the bulk of the Short Cross money. Class 4 coins are limited while Class 5 is the largest single class. The classes attributed to Edward I (6 and 7) are negligible. Class 5 appears less impressive when its long duration of over 20 years is accounted for, making it less productive, year-on-year, than Classes 2 and 3 (Figure 4.15). Production was not an evenly spread process with the internal subdivision revealing that the bulk of mint activity occurred in 5a-c and 5g. Figure 4.16 plots the PAS finds alongside the selected hoards. The most striking pattern is the similarity between PAS and the Colchester hoard which 'provides better statistical evidence than has previously been available in print for the volume of coinage produced in successive classes [to 5c], and by the various mints and moneyers throughout England' (Archibald and Cook 2001: 72). The PAS data suggests this general profile nationally and suggests homogeneity in this sense between the good money hoarded by the wealthy and coins in general use in the towns and villages. The remaining hoards show, from the perspective of hoarders, the gradual domination of Class 5 over time, however even the Greywell hoard – hidden in the 1270s – included over a third of Class 3 coins. The distribution of the large PV classes 3 and 5 is uniform suggesting that movement and mixing of coins from different mints was rapid over the entire period.

4.1.4 Summary and interpretation

The huge growth in coin production witnessed in the twelfth century was made manifest in the English currency in a number of ways. Firstly it allowed mints to strike more coin, thereby increasing the circulating pool exponentially. Second the growth in available coin clearly influenced both the level of interaction of people with coins and the geographical extent of engagement with the activities that produced coin-losses. Markets and fairs must have impacted coin circulation and these are known from documents in increasing numbers from the thirteenth-century (Letters 2012) but probably had earlier forerunners that are undocumented. The reduction in mint premises over the period does not appear to have affected either production (which was increased in a smaller group of mints) or the distribution of coins in areas without mints.

The larger coin-classes tend to be those that reminted the previous currency, such as Short Cross class 1 and Long Cross class 3 but the large numbers of coins struck in Short Cross class 5 cannot be simply explained as the recycling of poor quality existing currency. Instead the growth should be seen as linked indirectly to the greater availability of silver from Europe coming to England via increased exports, presumably of wool.

4.1.5 Hoard patterns

The hoard record for Phase B amounts to 111 finds, 35% more than Phase A. The earliest, a Short Cross hoard from Higham on the Hill (Leics.) was found in 1607, and recorded in Gough's Camden's *Britannia* (Metcalf 1957: 192-4).[71] The number of hoards from each period is closely allied to the period's length (Figure 4.2) but interestingly does not correlate as well with the volume of single finds. Calculating hoards-per-year we find a slight reduction period to period, between PIV and PV this is 1.1 to 1, while from PV to PVI it is 1 to 0.7. The hoard record is not perfect in representing certain parts of the country and specific time periods but does give us an essential window on one part of the life-cycle of coins. Some of the problems associated with hoards are symptomatic of their time

[71] The earliest recorded medieval hoard was a find made in or shortly after 1196 in London comprised of *c.*72 Byzantine gold bezants. (Cook 1999b: 260). Like most hoards, this was recovered within a few years of deposition.

of discovery, either having been made before standard classifications were devised and dispersed among collectors before records could be made. Most of the finds of the past sixty years or so are well recorded. Recent finds have shown a palpable shift in the size of hoards towards smaller finds (Figures 4.17 and 4.18) with far reaching implications for reading interactions between people and money.

Period IV

PIV hoards are of limited use in this Phase due to the small size of some, Leiston (2 coins), Little Barningham (3 coins) and Mile Ditches (8 coins) and the lack of full publication of others (Figure 4.19). Fortunately some of the older hoards, like Lark Hill and Leicester are sufficient for comparative analysis. Recent finds have tended to be of smaller size, only two hoards since 1900 have been greater than £1 in value. The hoards, the largest of which from Tealby (Lancs.) consisted of *c.*6,000 coins, are almost entirely in the east of the country (Map 4.21), and in general come from the areas of significant single finds, particularly in East Anglia, Lincolnshire and Hampshire and to a lesser extent in the south Midlands. However, the Outchester hoard (Northumberland) reveals possession of coins away from the core monetized zone, although there is an obvious link via the east coast to the Durham and East Yorkshire where coin finds are more prevalent. The hoard from Cwmhir Abbey (Powys) is doubly analogous in its location – well outside the circulation zone – and in the fact that it was apparently composed entirely of French deniers which were not a part of the currency.

Period V

In PV there are more hoards in real terms but a reduction in hoards per year. The growth in minting and therefore the circulating pool seems to have enabled the accumulation and hoarding of larger groups of coins than was previously possible. Hoards like Colchester (10,972) and Eccles (6,230) show this growth, but not to the scale revealed by the single find record, illustrating the changing use of coins. However most hoards were small (60 coins or fewer) and since the 1990s the proportion of hoards of less than a shilling in value has risen (Figure 4.20), this is particularly true of finds from counties south of the Thames.

The hoard record is limited by its uneven distribution over the period, for example in the key years running up to and following the 1205 recoinage there are few, if any, hoards (Besly 1995: 52). The distribution relates well to the main areas of single-finds in the eastern half of the country and in the Midlands (Map 4.22). In the south hoards are known from most counties. North of the Thames valley there are surprisingly few until one reaches the cluster of seven hoards in the West Midlands area. In East Anglia the hoard density does not match the plentiful single find evidence with the majority found close to the east coast in Essex and Suffolk, two of the three largest hoards are from this area. Of special interest is the north-west where ten hoards are loosely clustered from Cheshire to Cumbria correlating with the single find pattern. The other main areas – Lincolnshire and Yorkshire – are well represented with the Bainton (East Riding) find marking the northernmost extent of the hoard record. Compared with PIV the distribution is wider and pushes beyond the margins of even the single find record in areas of high ground in Devon, Derbyshire and the north-west.

Period VI

Twenty-one hoards deposited in PVI are known ranging in size from six pennies (Hambleton, Leics.) to the huge hoard of over 14,000 coins from Colchester – more than five times the entire PAS dataset for PVI. All but one PVI hoard was deposited in Class 5 (1251-72) and limits our ability to view the circulating pool in the early years of the type. Since 1990 all hoard finds have been less than £1 in value Figure 4.21. The geographical spread of hoards shows some interesting variation from earlier distributions (Map 4.23). A large number of the hoards (38%) are located in the South East including the four largest – Colchester, Steppingley, Hornchurch and Tower Hill. There is minimal hoarding in East Anglia (two from Suffolk and one each from Cambridgeshire and Norfolk). Hoards extend west only as far as Hampshire (Greywell and Winchester Cathedral Green) and north to Marsden (West Yorks.). From the area of Coventry come two hoards with another pair from Rutland. Isolated hoards are found in Nottinghamshire, Shropshire, Caernarvonshire, Hertfordshire and Bedfordshire.

At the macro-scale the hoard distribution broadly equates to the single finds but often pushes the limits of the coin evidence beyond them. In some places hoarding seems to be a precondition of the adoption of a coin-loss culture and unlike the singles some have a clear link to specific sites in the landscape such as monastic sites like Leiston (Suffolk) and Cwmhir (Powys) and castles such as Framlingham.[72] There is no correlation between the size or frequency of hoards and the density of single finds. In fact the opposite is true with large groups of coins being held in areas in which single finds were at low levels or absent. This implies a division of coin-use and circulation with some coins destined for storage and others for more general use. The distributional evidence has shown that hoards and single finds are in general two different bodies of material in use at different levels of society and kept and circulated for different purposes – one as a store of portable wealth (often including items of jewellery).

4.2 Regional distributions and key assemblages

The following regional analyses are formed of two parts, first is a discussion of the distribution, the second looks at some key assemblages. Figure 4.22 lays out the data which forms the basis of the distributional analysis by region and county. The percentage share by county of the data (Figure 4.23) shows East Anglia dominant over the Phase and particularly in PIV but the general pattern is for the incremental growth into PV and PVI. This is not the case for the North, which is high in PIV and the South East which is strong in PV. Expressed in a way which compares the data within regions against the national mean (Figure 4.24) shows a consistent division by type nationally, although small deviations are present, for example the lower level PIV in West Central and Wales and the higher than average PIV presence in the North. Finds in these regions are comparatively rare and this helps explain the variation. The distribution of 'sites' with viable samples is geographically more even than in Phase A (Figure 4.25). Viable assemblages are most prolific in Yorkshire, Lincolnshire and East Anglia, but sites in the South East and West Central regions, as well as some in marginal areas like County Durham, Land's End and Anglesey push the limits of interpretation beyond previous confines (Map 4.24).

[72] Future studies exploring in detail the location of hoard sites within the medieval landscape should be a research priority for applied numismatists.

4.2.1 Northern England

The pattern of Phase B finds in the north shows a pronounced east-west division (Maps 4.25-4.27). This seems largely imposed by topographic constraints with the vast majority of finds east of the Pennines and Yorkshire Dales. At the start of PIV this pattern is restricted to a cluster of lowland sites in the Vale of York with York itself and a string of sites along the Roman road from Brough to York (modern A1079), and Barmby to Stamford Bridge notable. In PV the volume increases, most densely around York at Long Marston in the west and Pocklington and Barmby Moor in the east. The intersection of the Derwent and Roman road at Malton becomes a focus for activity. Finds come from near Harrogate, the Ure and Swale Valleys and the Roman road to Thirsk. In Holderness two finds come from Beverley (excavation coins recorded on EMC), with others spread along the east of the plain while in the Vale of Pickering sites along the Derwent Valley and up on the Wolds at West Lutton have produced more than one coin. In PV there is growth on Holderness, north-west of Hull and towards Bridlington and the coast. In PVI the distribution is similar to PV with the main focus in the Vale of York. There is continuity of findspots in Holderness but in Pickering coin finds are on the higher ground. The maximum number of coins from individual sites reduces from eight to four.

To the north finds thin out and are limited to the larger towns and their localities, such as Bishop Auckland, Darlington, Durham and Newcastle, with finds intimately linked with settlement and road networks. No PIV coin has been recorded west of the Pennines. In PV there is a sudden surge in finds in Lancashire which come from the Ribble Valley (from Gisburn down to Preston), the southern alluvial plain of the Fylde, and along the Lune Valley and Lancaster Canal and into southern Cumbria. In the north a few finds are near Carlisle in the Eden Valley and the Stanegate. In PVI in Lancashire and Cumbria there are fewer finds and these tend to be in the upper reaches of the river valleys rather than the lowlands. In West Yorkshire finds cluster around Pontefract in PV.

The northern mean has the same broad shape as the national mean but in different proportions (Figure 4.26). Very few parish assemblages in the northern region are large

enough for comparative analysis. This in itself reflects the lower levels of coin-loss in the region however, the Vale of York and parts of the East Riding do show evidence (continuing from Phase A) of monetization and are compared with the regional mean and material from other sites (Figure 4.27). The northern assemblages, bar York, roughly follow the regional mean with PV more dominant (60-70%) at Barmby Moor, Beverley and Snape with Thorp. York's position as the major city in the north is reflected in the progressive growth in finds numbers in each Period with coin-loss building over time and suggestive of a developed coin economy.

4.2.2 East-Central

In PIV coin finds are found at sites from Lincoln up to the North-East and the Humber Estuary particularly along the escarpment of the Wolds (Maps 4.28-4.30). Finds correlate with the Roman road network across the county. The Trent and Witham rivers are foci for finds as is Northampton and the Nene. In PV the distribution extends into much of the region, the largest growth is seen along the Trent and north-west Nottinghamshire, a mass of new sites west of Leicestershire and the area around Sleaford. In the south of the region finds expand along the river systems of Bedfordshire and Northamptonshire. The pattern of PVI is very similar suggesting continuity in monetary activity from PV at the regional level.

The region's mean is almost identical to the national profile. The seven key parish assemblages (most of which are in Lincolnshire) show two types of profile albeit with internal variation (Figure 4.28). There are no PIV coins at more than half of these sites. Of the four 'stepped' profiles (Barton-upon-Humber, Brooke, Hatton and Saltfleetby), Barton and Saltfleetby begin in PIV; both are coastal/estuarine sites and their local economies were probably stimulated early. Of the remaining 'sites' Sleaford matches the regional mean while the other two, Collingham and Upton lack PIV and are dominated by PV (74% and 60%). The regional mean is matched by Sleaford and in terms of PV dominance and low PVI at Collingham and Upton. Barton, Brooke, Hatton and Saltfleetby are different and show incremental growth over the Phase with Barton and Saltfleetby beginning in PIV. The

coin profile of an assemblage from South Ferriby (Humberside) is similar to the mean (Cook with Carey and Leahy 1998: 106). The site was a ferry point across the Humber and grew in significance through the twelfth and thirteenth centuries, at least in terms of its coin finds. The site shows how a relatively small-scale and mundane focus for coin users can yield a useful quantity of coins.

4.2.3 West-Central England and Wales

There are minimal finds in PIV with small concentrations in Warwickshire and Worcestershire focused on the major rivers (Avon, Nene and Great Ouse). In PV finds increase markedly from 52 to 401 with the region's share of finds expanding (8.7%-13%). Coins are present in all English counties and from the eastern and southern borders of Wales (Maps 4.31-4.33). Finds from the Marches make their first appearance where there is only one recorded hoard, from Baschurch (Salop). The dominant areas for finds are the Severn and its tributaries in Gloucestershire, Worcestershire and Warwickshire as well as some strong correlations with the Roman road network. The pockets of finds around Birmingham and Coventry suggest a link to detecting habits of the inhabitants of those towns. In the northern half of the region there is some expansion, mainly confined to a rough triangle between Shrewsbury, the Wirral and Macclesfield with scatters of single finds dotted along the valleys of the Dee and Weaver, but not to the degree seen in the south. In Wales finds are almost wholly on the southern coastal plains in the Vale of Glamorgan, Gower Peninsular and Pembrokeshire. In PVI we see continuity with finds coming from many of the same areas as in PV. A few finds are up on the high ground in Powys.

The regional mean is similar to the national profile but is better endowed in PV and VI indicating that coin-use developed here later than regions in the east (Figure 4.29). The sites do not provide a broad regional distribution being principally in Warwickshire and Worcestershire. Several assemblages differ from the mean. All Warwickshire parishes and Newbold Astbury (Cheshire) show stepped growth over the Periods, only at Rowington is the PV to PVI ratio close suggestive of the later impact of coin-use. The profile of the Leigh

(Worcs.), Llanfaes and Waterhouses (Staffs.) finds matches the mean more closely. The Llanfaes site is exceptional in the number of finds recovered and is also one of the few assemblages with which we can associate particular monetary activity. The site was a thriving market for a short period in the late-twelfth and thirteenth century. Its profile reflects the period of its greatest extent, prior to the transplantation of the town in 1295. (Besly 1995: 47).

4.2.4 East Anglia

More than any other region East Anglia's PIV distribution is significantly greater than elsewhere resulting from a combination of high levels of detecting and reporting of finds. Norfolk in particular stands out with finds from much of the county but most densely in the north-west where a mass of sites, on the lower ground west of the Icknield Way, have produced coins (Maps 4.34-4.36). The rest of Norfolk and much of Suffolk and the southern half of Cambridgeshire are dotted with finds and the region has the largest number of sites with multiple finds in PIV. Essex is less prolific with the majority of finds coming from the Chelmsford area. The dominant county in PV is Suffolk while the emphasis shifts away from the Icknield Way to north-central Norfolk. In Suffolk between Bury and Ipswich and extending north-east are large numbers of finds and coastal areas begin to become more important suggesting a link to coastal trade networks. In Essex the finds are more evenly spread than in PIV focussing on Colchester and Chelmsford while in Cambridgeshire most of the finds are south-east of Cambridge. In PVI overall finds numbers are slightly reduced and the region maintains its *c*.30% of the national assemblage with Suffolk finds growing at the expense of the other counties. The PVI distribution is similar to that of PV but shows occasional areas of contraction, as at Colchester.

The regional and national mean are of similar order with a slight uplift in PIV (Figure 4.30). East Anglia has a large proportion of significant assemblages with higher PIV proportions than other regions (14% against the national mean of 10%). Bromholm Priory is high in PV and limited in PVI which shows the surge in coin finds came from the involvement of lay

people (in the form of pilgrims and patrons of the priory's market granted in 1229) in the precinct (Pestell 2005: 181). Other profiles which match the mean are Covehithe, Dunwich, Freckenham, Outwell and Wiveton while at Morley and Isleham we see growth to a dominant PVI and at Westley the PV to PVI ratio is much more even. The adoption of coinage at levels sufficient to generate coin-loss was not uniform across the region.

4.2.5 South-Eastern England

In the south-east PIV find numbers are low with the small number of EMC find-spots – restricted to Kent, Sussex and a strip of coastal finds from Newhaven to Portsmouth – swelled by PAS material from Romney Marsh, the area east of Canterbury and the Thames Estuary (Maps 4.37-4.39). The Weald and North Downs are empty of finds. Both datasets are represented well in Hampshire east of the River Test but less so to the west. North and west of London findspots are isolated and most prolific in Buckinghamshire. The 10% shift in national share from PIV-V is striking. We see expansion in areas populous in PIV, east of Canterbury and at New Romney, Gravesend and the Brighton area; but also extensive growth in new areas south and west of Canterbury, around Rochester and along a broad coastal stretch of Sussex from Eastbourne to the Solent. Further north significant finds come from the North Downs from the Kingswood area along the Hog's Back to Guildford and continuing towards Basingstoke. Intensified coin-loss is seen in south-east Hampshire, Winchester and the Test Valley as well as on the Isle of Wight. North of London finds are less prolific and from fewer find-spots especially in Oxfordshire and Berkshire. Buckinghamshire has a consistent spread over the county as does the area around Stevenage (Herts.).

The South Eastern mean is lower in PIV than the national profile and thus higher in PV-VI (Figure 4.31) Given the fact that London was the commercial and economic heart of England, and other major towns such as Canterbury and Winchester are in the region, this may seem surprising, but may be explained by the data reflecting the general rural pattern in the region. These sites may not have had levels of coin-loss in PIV. The absence of material from medieval settlements lost beneath the urban sprawl of London means that

we lack evidence of the interaction between London and the 30km zone around it. A number of useful sites are in the region; the majority have a similar profile to the regional mean such as Ashwell, Calbourne, Ellesborough, Firle, New Romney, Vintry, Wanborough and Winchester. The sites at Brighstone, Crawley, New Romney and West Clandon show progressive growth in coin-loss over the Phase.

4.2.6 South-Western England

The South West is the poorest region for finds in all periods and maintains a consistently low share of the national assemblage throughout averaging 4.2-4.6% between PIV and PVI (Maps 4.40-4.42). The majority of finds are in Dorset and south Wiltshire, which correlate well with the road network and some of the large towns (Salisbury and Ilchester) and reinforces the absence of settlement and material culture as one moves into the higher ground west of the River Parrett. Isolated finds from north Wiltshire in PIV increase in number into PV and VI while sites along the Devonian and Cornish coasts and especially on Land's End come to prominence.

The regional mean is very similar to the national mean (Figure 4.32). The absence of Phase A sites is remedied in Phase B by a few sites with more than 10 coins. The Cornish sites of Hayle and Lugdvan share profiles similar to the regional mean although PIV material is not present at the latter suggesting that coastal links to developed coin-using zones were important stimuli. Kingston Deverill (Wilts.) with nearly 60% of the coins from PVI shows that participation in a monetized economy as seen further east came later in the region.

4.2.7 Summary and interpretation

In general terms the PIV distribution is akin to the earlier PIII pattern and it wasn't until the currency expanded in volume in PV, as shown by the significant increase in reverse dies for the early Short Cross coins, that new areas for coin-use appeared (Allen 2012a: 305, table 9.6). The east to west transmission is clearly visible on the maps and finds from the West Central region increasing significantly. Marginal areas, like Devon, Cornwall and mid-Wales, were not affected in the same way although coastal finds increase reflecting

both settlement and the importance of such communication routes. The striking increase in finds in Lancashire and Cumbria requires further examination as the sudden appearance of Short Cross hoards and single finds suggests significant change which may be linked with a zone of contact across the Irish Sea (Chapter 6), while the development of coin-loss on higher ground seen on some maps may perhaps be linked to granges and monastic sites exploiting such areas and introducing coins to new territory.

Assemblages can only speak for the local environment which created them but as a rough method are valid markers of monetization. Two profile types visible in the finds, the 'mean' and the 'stepped'. Attaching too much weight to these profiles for reflecting particular types of 'site' ignores the many complexities in the record and the difficulties with the data and each site ideally requires a comprehensive study to ascertain the environment in which such coin profiles were created. Excavated areas of towns are problematic as samples as they often provide only a window on a small area, which may not be reflective of the overall pattern as activities shift from place to place. However losses are shown to develop from modest beginnings in PIV and to increase, at different rates both within regions and nationally. Adoption of a more monetised economy in rural environments can be seen in the growth in finds from villages and monastic houses. Bromholm shows that the surge in coin finds came from the involvement of lay people (in the form of pilgrims and patrons of the priory's market granted in 1229) in the precinct while at Ferriby the ferry was a local stimulus.

4.3 Denominations

Over Phase B fundamental changes in the composition of the currency took place which marked a significant step in the expansion of coin-use linked to the commercialisation of England and Wales. For the majority of the Phase the only coin struck at English mints was the penny, which would be cut for small change using the reverse cross as a guide. In 1222 a small issue of round halfpence and farthings were minted in London but quickly

abandoned (Allen 2012a: 352). None of these are recorded on PAS.[73] This section looks at the changing role of denominations as single finds, in hoards and from excavations.

4.3.1 The rumour of gold

In Henry III's reign an English gold coin was minted for the first time since Edward the Confessor's reign. In 1257 the mayor of London proclaimed that the king's new gold penny should be immediately current for 20*d.* The coins did not prove popular and were quickly withdrawn; evidence shows that the king was buying them back at an inflated 24*d.* between 1265-70 (Allen 2012a: 350-1; Stewartby 2009:100). Although an unsuccessful enterprise the need, among certain classes of society, for more valuable coins would remain. As yet we have no finds of Henry's gold penny,[74] and few of those other foreign gold coins which are recorded in the king's great treasures; such as Islamic dinars, Byzantine hyperpyra and even augustales of Frederick II of Sicily. Documentary evidence has shown that these coins were used in large numbers among the merchant and elite classes (Cook 1999b) and are explored in Chapter 6.

4.3.2 Period IV

In PIV the penny was the primary coin in use accounting for 60% of the finds with 30% cut halfpennies and 10% cut farthings (Figure 4.33). These proportions are almost identical to PIII. Fractions are rarely included in PIV hoards. Some like Awbridge and Gayton are composed entirely of pennies. A cut-halfpenny was in the West Meon hoard (2.9%) while cut-halfpennies and farthings accounted for 3.4% of the Lark Hill hoard. Wicklewood differs from most PIV hoards in a number of respects and its denominational profile is certainly interesting. More than a quarter of the hoard were fractions (23% halfpennies; 5% farthings) and the high proportion of East Anglia mint signatures shows they were probably drawn at a local level. Elsewhere I have suggested that this factor, combined with the proportion of bent coins in the hoard and the proportion of older coins mark this out as exceptional and perhaps represents money stolen from a store of coins at a pilgrim

[73] Less than ten halfpennies and five farthings are known to the author in September 2012.
[74] No finds of these are on PAS but several survive in public and private collections.

site (Kelleher 2011: 1497). Hoard evidence has limited use in assessing the circulation and use of fractions.

The 60 excavated coins favour pennies in proportions greater than we see among the single finds (Figure 4.34). It is possible that the smaller size of the fractional coins affected recovery on excavations where metal-detectors were not used. At monastic sites, towns and manors the penny dominates over fractions to varying degrees (less so in the towns), the castle finds are evenly matched while the villages produce the most interesting picture with just 25% pennies. Comparing urban and rural with Vintry (Figure 4.35) shows a shift in profile. At the Vintry fractions dominate, in other towns pennies and fractions are present in even quantities while on rural sites pennies are dominant. This seems to contradict the excavation data which favour fractions over pennies 3:1. More evidence is required to explain this, perhaps the cleanliness of rural peasant dwellings such as at Wharram (Dyer 1997) meant that only the smallest, misplaced coins survived to become part of the archaeological record.

Map 4.43 plots distributions of denominations in England and Wales. There are no discernable patterns with the profile of denominations uniform across the country. Figure 4.36 sets out the denominational breakdown of finds by region to look for any observable patterns in the make-up of the coin sample. There is a general conformity to the mean although both the East Anglia and West Central regions have higher numbers of fractions, at present this remains unexplained.

4.3.3 Period V

The PV profile is outlined in Figure 4.37. For the first time in the study period we find pennies marginally outnumbered by fractions 49:51 with the halfpenny growth of 14% at the expense of pennies. Farthings are in almost exactly the same proportions. The average split in PV is 5:4:1. PV Hoards provide limited evidence for establishing the role of fractions in currency but are educative in showing how fractions aren't hoarded relative to their ubiquity as single finds. However from a sample of recent hoards where the full content is

recorded some evidence for the fuller use of fractions can be suggested (Figure 4.38). The inclusion of fractions ranges from nil (Dereham) to almost a third (Wellow). Over time there is growth in the proportion of fractions present perhaps reflecting differential access to full pennies in certain contexts or, given the small size of many of these hoards, a glance at the contents of a selection of 'average' stores of cash across the Short Cross period.

Coins from excavations provide a less consensual set of profiles showing variability across site types (Figure 4.39). Village sites are most comparable to the PAS with pennies (22.9%), cut-halfpennies (51.4%) and cut-farthings (25.7%) favouring the fractional coins. Other site types vary; of those with sufficient finds to make reasonable comment monastic sites are closest to PAS and villages – perhaps reflecting their largely rural agrarian function – with 46.2%:46.2%:7.6%. Castle finds consist of pennies and cut-halfpennies 65.5%:37.5%:0% while in towns pennies dominate 66.7%:23.2%:10.1%. Finds from the detector sites (italics) are more prolific in PV than any other period and provide vital evidence for coin use in three different urban contexts. Vintry, Dunwich and Llanfaes are compared with PAS in (Figure 4.40).

Activity at the Vintry saw more intensive activity (continuing from PIV) at the start of PV than at Llanfaes, whose chronological and denominational profile is very similar to the PAS mean and suggests that the growth in coin-use (and therefore monetary activity) occurred after 1200. Evidence from Llanfaes suggested that cut coins were often older issues (Besly 1995: 51) which is good evidence to suggest that coins were being cut outside the mint. However, the PAS data shows no such preference with Class 5 and 6 coins (50% fractions) most likely to be cut followed by Class 1 (45%). There is then a significant drop-off to the proportions of fractions in 2-4 and 7-8 which all have less than 30% fractions.

Mapping the denominations (Map 4.44) again shows little distributional patterning. Fractions appear to be proportionate across most of the country. Finally, the denominational profile arranged by region (Figure 4.41) shows a varied picture. Regionally

the pattern is fairly even suggesting that the uses of coins were taking on a broad national character.

4.3.4 Period VI

In PVI the shift towards fractional coins dominating continues in PVI (Figure 4.42). Almost half the finds are cut-halfpennies (45%) with the penny share diminishing to 38% in favour of farthings which grew 7% over PV. In this way the mean value of each coin find is a little over a halfpenny at 0.65. Relying on hoards is extremely problematic as data can vary hugely (Figure 4.43). The largest PVI hoard we known of – Colchester – was composed exclusively of over 13,000 pennies, of good 'money'. Rarely is it possible to trace the owner of a hoard but the Colchester report authors were able to show that the money was probably the property of two Jewish financiers Samuel and Ioce (Archibald and Cook 2001: 95). This throws into relief the reliability of all hoard contents for being representative of the circulating medium especially if the variables under examination rely on tangible differences such as weight and size of coin. It is natural to assume that hoarders would select the best weight/denomination coin available – as in the Colchester example.

The excavation data is in broad correlation with the single finds if slightly higher in pennies (Figure 4.44). Different site types show slightly different profiles, probably representing the ways in which coins were used and by whom. Villages for example yielded 79% fractions while at castles this figure was closer to 25%, in between these extremes sit towns and monastic sites at around 50%.

By PVI the character of the PAS material comes into line with the Vintry assemblage (Figure 4.45). It has already been noted that the commercial character of the London site was a key determinant in the type of denominations that were in use there and so the fact that the PAS material (essentially the coins in use in rural England and Wales) is similar is interesting. It suggests that urban and rural economies had become more interlinked in a partnership of mutual benefit, with surplus moving to the local town and coin moving into

the villages and used in small scale transactions. This model need not apply at all places and at all times. The profile of Dunwich, which is entirely fractions and heavily biased toward farthings, probably indicates an urban marketplace, while the Llanfaes assemblage more heavily favours cut-halfpennies but was ostensibly created by losses at market. Both of these cases show the importance of cut fractions in the goods they were used to buy. The distribution map (Map 4.45) again shows fractions in proportions reflecting overall numbers of coins. The regional PAS data (Figure 4.46) is perhaps even more homogenous nationally than was the case in PV with the North slightly favouring the penny more than elsewhere.

The denominational change seen over Phase B is remarkable. At a time when the availability of coinage was greater than it had ever been it seems that the use of fractions of the penny developed at all levels of society, but particularly among those within the villages of England and Wales. PAS finds and excavation data point to this diversification and it seems to suggest that monetization, for most people, occurred locally and with reference to small goods that may have previously been settled cumulatively at the end of the month.

4.5 Mints

Documentary sources come into their own in the thirteenth century in providing figures for mint output and policy regarding coin production. The picture of minting is well understood in the Short and Long Cross periods, however, there is less complete information on the circulation and use of coins relative to their mint of origin. We know that mint numbers reduced over time, but what effect did this have on coin-users (Figure 4.47)? Are there any regional patterns that emerge? Despite the poor quality of striking in the Cross-and-Crosslets coinage and the fact that the name of the mint is absent or partial on cut coins 56% are identified to mint, in PV this rises to over 68% (2004) and in PVI a slightly lower 63% (1506). Figure 4.48 compares the PIV mints against those from PIII. The number of active mints between PIV and PVI is deceptive as in PV and PVI most mints

operated only for short periods. The fact that by the end of PVI just three were active indicates the centralising tendencies of the Angevin and Plantagenet dynasties.

4.5.1 Period IV

Four mints stand out among the 32 known mints in terms of output, London, Canterbury, Ipswich and Newcastle (Figure 4.49). Only in Class A is London preeminent among the mints. The busiest mints for the recoinage of Stephen's coins were the larger towns, Norwich, Winchester, Thetford, Canterbury and Lincoln with otherwise absent or small-scale mints like Leicester and Salisbury active only in this class (Figure 4.50). After this the picture changes reflecting the beginnings of a reduction in mints but also the placing of mints where commerce and the need for exchanging of silver was most active. Through Classes B, C and D Canterbury is dominant but in E and F we see the emergence of mints, other than London and Canterbury, assuming responsibility for the greater portion of coin production (Figures 4.51-55).

Two noteworthy developments in minting occurred in this period involving two regions of the country usually at opposite ends of the scale of coin production – East Anglia and Cumbria and Northumberland. Ipswich came to become a significant mint in Classes B and C and after being absent in D and E accounts for more than a third of the sample in Class F. This huge growth after a hiatus has been associated with the rising of the young King Henry in 1173/4 (Allen 1951: xiii) where the heavy penalties imposed on East Anglia in the aftermath led to the minting of poorly struck emergency issues. Carlisle first appeared at a low level in Henry I and Stephen's reign. In PIV its importance grows. It is present as a mid-range mint in A and B but comes to rank fourth most productive in C and joint-second in D before returning to a low ebb in E and F. Newcastle was a lower ranked mint in A, C, D and F and absent in B, however in E – just as Carlisle's importance waned – Newcastle becomes the most dominant mint. Both mints were opened to exploit the new mines of Cumberland (Allen 1951: xii) particularly at Alston Moor. Debate over the productivity of these mines has ensued. The known number dies for Newcastle and Carlisle between 1158 and 1205 would have been capable of producing £3,000-£8,000 in pence, not the

£75,000 suggested elsewhere (Allen 2012a: 248 citing Claughton 2003: 122). The single find sample is small but shows that the northern mints did contribute to the national currency in a way not seen in earlier or later periods, and as will be seen below there was an element of regionalism to their distribution.

Looking for regional patterns of circulation was one of the key ways of addressing questions about the currency and how it moved and was used. The general trend among the larger and second tier mints is one of wide dispersal. Ipswich coins in the south are limited and are found rather to the north and west of the mint, most densely in East Anglia but with some around the Severn Estuary, Lincolnshire, Yorkshire and Durham. The northern mints display some regional patterning and in percentage terms account for a larger proportion of the finds in the counties north of the Humber. To ensure that we are seeing mint patterns free of detecting bias, it may be useful to plot coins within set geographical boundaries. This should flag up any inconsistencies in the data and level out areas where overall find numbers are lower. For the purposes here I have selected six counties that must contain 10 or more finds (Figure 4.56). The pattern seems to match the national proportions but with some regional differences, for example Newcastle coins are dominant in North Yorkshire (and presumably in County Durham and Northumberland were finds numbers sufficient for analysis). In East Anglia the output of the local mint of Ipswich is inflated, particularly in Suffolk where it is the dominant mint, but also in Cambridgeshire and Norfolk where it ranks second. The second tier mints (those directly below London and Canterbury) are shown to have a perceptible influence on the circulating medium of their region.

4.5.2 Period V

Twenty-one mints were active over the period and all except the rare mint of Lichfield are present. Overall mint production was dominated by London and Canterbury continuing the pattern seen at the end of Period IV (Figure 4.58). Although London accounts for almost twice as many coins as Canterbury this pre-eminence is not seen in every class and is the result of London monopolising production in the recoinage classes 1 and 5. The

majority of surviving Class 1 coins were minted in London (Figure 4.59) with Winchester a distant second. Canterbury was not active at this stage but struck in Class 2 (25%) growing to 35% – higher than London – in by Class 3 (Figures 4.60-4.61). In Class 4 London (43%) and Canterbury (35%) switched positions. In Class 5 the mint network expanded to accommodate the partial recoinage brought in to remedy the poor state of the currency through illicit clipping. This network saw London dominate over all other mints with Canterbury (16%) and Winchester (11%) of small consequence and all other mints at 6% or less. If this mint network reflected the areas where coins were most in use then the wealth of England, at least in terms of circulating coins, was squarely centred on London. Mint numbers in subsequent classes dwindle to six in Class 6, four in Class 7 and just three in Class 8 (Figures 4.64-66). A small issue of coins was minted at Rhuddlan in the Short Cross style, although they do not conform to the classification. In the overall scheme the 22 coins are of small consequence but do indicate the indigenous evolution of currency in Wales, at least for a short period. Unlike PIV the single finds evidence conforms to the general patterns which have emerged through numismatic scholarship. Distribution mapping revealed no evidence of patterning of coins near their mint of origin suggesting a relatively swift-moving, well-dispersed coinage.

4.5.3 Period VI

Finds in PVI are overwhelmingly derived from London and Canterbury in the mode of PIV and PV. The network was only at any wide extent in the recoinage Class 2 and 3 coins when 19 mints were active (Figures 4.67-70). In the long-lived Class 5 (the most populous class) London and Canterbury combine to monopolise production (Figure 4.72) as together they account for 95% of the coins. By the end of the Phase just two mints in the south-east of England, arguably the economic and spiritual capitals of the nation, were responsible for almost all the coins minted and circulating in England (Figure 4.73).

Summary and interpretation

Single finds have provided a solid basis for mapping the changing nature of minting in Phase B. Within the time span covered here production went from a network of smaller

mints over much of the country to effectively two mints in the south-eastern corner of England producing the entire currency. The centralising tendencies alluded to in the introduction were enacted with ruthless efficiency. There were practical as well as political motivations for this not least being located close to the trading ports on the south and east coasts from where new silver was obtained in exchange for foreign coins and plate.

4.6 Phase B discussion

Bringing together the finds evidence from Phase B has highlighted a number of issues and themes. There can be no doubt that the availability of silver in quantities not seen previously created the conditions for the state and the individual to participate in new ways regarding the production and consumption of coins. The major changes in the administration of mint production appears not to have been accompanied by any significant growth in output symptomatic of the European surge in silver supplies known to have taken off in the 1160s-70s. Using single finds as evidence we see overall growth from Period III-IV of 5.3% reflecting a level of continuity of activity from the Norman phase also played out in the denominational profile with pennies dominant. However it was the period *c.*1200 when external silver supplies had a major impact on the English coinage.

Evidence from Vintry shows that in the intensive commercial zones of the major towns, the composition and therefore uses for the circulating coinage were different and reflected different needs, which ran contra to the overall rural patterning seen elsewhere in the finds. It is often stated, quite reasonably, that the economies of town and country were inseparably linked (Dyer 1997; Mayhew 2002), but the evidence from coin finds in PIV suggests that this relationship did not extend to a direct correspondence of coin-use across the two areas. The typological and mint evidence has also shown that the circulating coinage was well mixed and that there was a strong hierarchy of mints (also seen in hoards) that was a product of the levels of coin production and the location of find-spots relative to source. In some areas the impact of the local mints was felt more strongly than in others due to the complex interplay between silver supplies, mint productivity and the movement of coins from other mints into the region. A fuller finds

record than is available at present is required to explore regional complexity beyond the areas of high finds recording. It may be that the coinage in circulation in Cheshire, Wiltshire or Nottinghamshire, for example, was subject to subtle variations in regional mint patterning that we have yet to discover.

The transition from PIV to V witnessed the most significant increase in single finds at any time in the study period (+355%). The impact of newly available silver was made material in England through increased mint production. There is also some clear regional differentiation in places like Llanfaes where the growth in coin use occurred after *c*.1200. Was this linked to a need for coin? Or the imposition of coinage on the population, as Marxist economic historians might argue. Tied to the increase in production seen in the growth in coin-finds is the complex idea of shifting unit value, for, as we see in the denominational profile more than half of finds are fractions. In terms of circulating coinage this seems to represent a growth in what coins were being used to buy rather than deflation in prices of goods. Remember, we are seeing the bottom-up picture of money rather than top-down. Hoards are still being deposited and the composition of those hoards is largely good quality, high weight silver pennies and the avoidance of fractions, which seem to have become increasingly important in the marketplace and in a broader spectrum of sites, seen in the growing number of coins from village sites and the PAS rural data.

Hoards hint at the potential mixed and fluid character of circulating coinage which finds strong support in the single finds. Coins would quickly enter the circulation pool and become mixed in quantities reflecting the overall national pool. The placement of mints reflected areas of most use as well as other factors such as ecclesiastical privilege. Therefore we can talk in terms of velocity being high and transactions on frequent basis pushing coins quickly on from user to user. The dominance of the mints at London and Canterbury is pronounced and shows where money is being exchanged and therefore most used. Canterbury's fluctuating output could reflect its position as the closest mint to the coast for exchanging foreign silver for English coin which was probably not a reliable

source. The evidence for the development of a monetized economy over much of England and Wales shows this Phase to have played a crucial role which witnessed the diversification of how money was used and the expansion of the coin using public – geographically and within the social hierarchy.

CHAPTER FIVE

MAPPING MONETIZATION IN ENGLAND AND WALES III

PHASE C: LATER MEDIEVAL COINAGE 1279-1544

Phase C: later medieval coinage

From the 1279 coinage reform of Edward I to Henry VIII's debasement of the coinage in 1544, a remarkable transition in the English currency took place. The impact on the public must have been keenly felt. New coin types appeared, both fractions and multiples of the penny and high-value gold coins, each diversifying the functional and performative roles which coins could play in society; be it as stores of wealth, media of exchange, offerings and so on. The periods in this phase are defined by three weight reductions in the currency in 1351, 1412 and 1464 rather than complete recoinages as in Phase B. This brings up the problem of carry-overs. Period VII (PVII) coins could theoretically circulate for centuries as shown by coins in the Ryther hoard (N. Yorks., deposited *c.*1487) of which 5% were Edward I-II pennies (Barclay 1995: 136). There is no evidence to show they survived beyond *c.*1500 (Allen 2005b: 53). Quantifying the volume of coinage carrying over from one period to the next (i.e. establishing date of loss) is a thorny issue and has not been fully resolved. Rigold carried over one third of the coins in his periods into the next and a further ninth into the following period (1977) but failed to adjust his figures to reflect the reduction (Blackburn 1991: 19). A useful study (Allen 2005b: 62, partially reproduced as Figure 5.1) has used the weights of hoard coins to provide a framework for interpreting the composition of the currency after each weight reduction and will serve as a guide in the following analysis.

5.1 The PAS evidence

Figure 5.2 sets out the Phase C finds data. The PAS figures show PVII dominant with the tailing off in PVIII continuing in PIX and then picking up again in PX, but this disguises two important aspects of the coinage; the differential length of each period and the potential carry-over of earlier coins into later periods. If all our finds were lost within their issue period then the loss-per-year figure in PVII is almost identical to PVI at 81.7 after which

this drops significantly down to 25.9 in PVIII and continues to diminish at 18.5 and 15 in PIX and X. The reality would probably have been less stark than this and is explored further below. Levels of hoarding are high in PVII (a twofold increase over PVI) with those in PVIII-X comparable to PIV and V while coins from excavations are dominated by PVII and tail off significantly to PVIII and more gently through PIX and X (Appendix C).

5.1.1 Period VII (1279-1351)

PVII marked a watershed moment for the English currency and set the template for the style and structure of coinage in England (and further afield) for the next 200 years. Cut coins were abolished and replaced by round fractions; first the farthing in 1279 followed by the halfpenny in 1280. A large silver fourpenny groat was struck for a short time at the start of Edward I's reign and by the 1340s his grandson Edward III had taken the first steps in introducing a permanent gold coinage to England. The idea of complete recoinages was ended in this period although in 1299 a concerted effort was made to withdraw the invasive continental imitations which had become problematic to the general health of the currency and remint them into English pence (Mayhew 1988, and see Chapter 6).

The coins attributed to PVII number 5,887. Removing those without spatial data and the non-sterling foreign coins leaves 5,765 with find-spot information from 4,008 individual find-spots in 1,729 parishes. Relative to PVI there is a 126.9% rise in individual finds in PVII and in terms of losses-per-year of issue this equates to 81.7, almost identical to the 81 in PVI. However, as PVII coins made up a significant proportion of the currency into the fifteenth century the real loss-per-year figure will be lower than this. The average value of each loss is 0.91*d.* signalling growth over the 0.65*d* in PVI. In this period the proportion of imported coins in the sample grows to 8.6% (from 7.8% in PVI). The majority of these are Scottish (170), continental sterling imitations (166) and Anglo-Irish (154) but small numbers of other imports have been found.[75] The Scottish, Irish and Continental imitations will remain with the English coins in the following analyses while the non-sterling types have been removed (see Chapter 6 for foreign coins).

[75] French (7), Anglo-Gallic (3), Italian (2), Low Countries, Byzantine and German (all 1) coins are present in small numbers and are analysed, along with the Scottish, Continental sterlings and Irish coins in Chapter 6.

Map 5.1 lays out the national distribution of PVII coins. Of all Periods PVII has the largest number of individual finds from the broadest spread of locations and importantly includes the largest assemblages from single locations (up to 23 coins). Comparison with PVI shows that the distributions are broadly similar, however the PVII finds are found in greater quantities in the South West and north-western counties particularly in Cheshire and Lancashire.

Production in PVII was characterised by three 'coinages'.[76] The first ran from 1279 to 1335 and saw pennies, halfpennies and farthings minted at 20 mints,[77] with London and Canterbury dominant. The second 'star-marked' coinage, named for the mullet in the legend of most coins, was struck between 1335 and 1343 and consisted only of halfpennies and farthings at a reduced weight and fineness. These coins, minted at London and Reading were an attempt to alleviate the shortage of coins smaller than a penny. From 1344 the third, or 'florin' coinage, included the first gold coins in three denominations, initially the double leopard or florin (from this latter comes the name of the coinage) and thereafter the noble and its half and quarter. Alongside these new high-value coins silver denominations continued to be produced at a slightly reduced weight standard at London, Canterbury, Durham, Reading and York.

The recoinage of 1279-81 (Class 1-3 pennies) dominates the early picture with the subsequent Class 4 well represented (Figures 5.3 and 5.4). Over the 1290's production was at a low level until the substantial recoinage of 1299-1300 to remove continental imitations from the currency. Class 10 is dominant but represents 10 years of production inflating its relative size. After Class 11 production was at a low ebb until 1335, when pennies ceased to be minted, and resumed with the not insignificant Florin issue of 1344-51. Halfpennies and farthings were produced at a low level but due to their generally poor identification using different classifications they are grouped within coinage period rather

[76] The basis of classification was devised by Edward Burns (1887) and developed by the Fox brothers (Fox and Fox 1909; 1910; Fox and Shirley-Fox 1911; 1912; 1913). They identified a sequence of 15 types from 1279-1344. Many of the classes have been subdivided further, see North (1989).
[77] The small issue of groats was minted at London 1279-81.

than class (Figure 5.5). Despite the various complaints about the lack of small coins minted 1279-1335, and the sole production of such pieces in the second coinage (1335-1344), the first coinage fractions still account for 80% of the PVII halfpennies and farthings, with 10% each in the second and third coinages. The single groat of PVII in the dataset reflects their rarity and minor role in currency before the fourth coinage in 1351 (but see Chapter 7 for their use as coin jewellery).

5.1.2 Period VIII (1351-1412)

PVIII began with Edward III's fourth coinage, in which the weight of the noble was reduced to 120 grains (7.78g) and the penny to 18 grains (1.17g), and terminates with the heavy coinage of Henry IV.[78] The silver denominations were joined by the groat and halfgroat while gold production, in the form of the noble and its half and quarter, expanded significantly. Only London, Durham and York struck coins but were joined by a mint at Calais, under English control, which opened in 1363 and was responsible for significant output under Edward III and Henry VI. By intercepting and reminting foreign silver on its way to England Calais assumed the role held in the thirteenth century by Canterbury and had a direct effect on the profits at London upon opening (Allen 2012a: 83).

PVIII coins number 1,652 of which 1,585 have coordinates from 876 parishes and 1,382 individual find-spots. The 26-year period of Edward III's fourth coinage dominates the PVIII group (Figures 5.6 and 5.7), with the first ten years of the reign accounting for the majority of extant coins (70%) and the Treaty period having a larger proportion of gold coins. Edward's coins outnumber those of his grandson four to one while those of Henry IV number just six. The discrepancy between the two reigns is exacerbated when we consider the value of the coins struck, 93.5% of Richard's coins are pennies (118) and halfpence (153) whereas in Edward's reign less than half of the 1253 coins were the smaller denominations favouring the larger silver and gold. Only two (of 61) PVIII hoards include Henry IV's coins despite the fact that many others were probably deposited during

[78] There is not an overall scheme of classification as different scholars tackled different series on a piecemeal basis: for Edward III's fourth coinage see Potter (1960; 1962; 1963; 1964), for Richard II, Purvey (1962), and for the heavy coinage of Henry IV see Blunt and Whitton (1945-8). Throughout the period privy marking became more ubiquitous helping numismatists to structure their typologies.

the reign. The foreign element shrinks to 4.5% from PVII with the majority (1534) being English.[79]

The significant reduction in coins from PVII does not visibly alter the extent of coin-loss at the national level (Map 5.2). Instead there is a thinning out of finds in all areas, signifying the contraction of coin-use at a regional and local level to a smaller number of sites at the expense of others. The maximum assemblage size drops appreciably from 23 to seven coins and this occurs at only two locations, the generally prolific Dunwich and Newbold Astbury (Cheshire). Some PVII coins would have certainly been deposited in this period, but it is beyond the scope of this thesis, and the quality of some of the records, to address this in detail. Allen suggests that in 1360 *c*.50-60% of the pennies in circulation were minted 1279-1351 (Allen 2005b: 62).

5.1.3 Period IX (1412-1464)

In 1412 the weight of the noble was reduced to 108 grains (7.00g) and the penny to 15 grains (0.97g) producing the 'light coinage' of Henry IV and continuing through the reigns of Henry V and Henry VI (first reign) into Edward IV's heavy coinage. In PIX the same silver and gold denominations continued to be struck as in PVIII. Production was limited to London but York and Durham struck pennies and halfpennies under Henry V and occasionally under Henry VI. The Calais mint reopened under Henry VI striking both gold and silver.

PIX coins number 974 of which 962 have coordinates from 596 parishes and 857 individual find-spots. English coins (953) dominate the corpus with only a handful of foreign pieces present.[80] Figures 5.8 and 5.9 set out the PIX data in the corpus. The small number of 'light' coins reflects the single year that this issue was in production before the death of the Henry IV. Henry V's coins are more common (200) with the majority of these being pennies (54.2%). The longer reign of Henry VI is matched by a larger body of material but

[79] Scottish (44), Venetian (11), Anglo-Gallic (6), French, Low Countries, Teutonic Order (2), Luxemburg, Portuguese and Spanish (1) coins make up the remainder, see Chapter 6 for discussion.
[80] The small group consists of Venetian soldini (4), Irish (2), French and Milanese (1) coins.

this is heavily weighted to the start of the reign with 52.7% of the corpus minted in the first eight years. The majority of the coins minted are pennies, halfpennies and groats with other silver and all gold coins extremely rare in PIX.

Map 5.3 lays out the PIX coin finds at a national level. The overall pattern is one of further inter-regional retraction as seen in PVIII although coin finds are still present in all counties with the heavily detected areas still visible. The maximum assemblage size is six coins, a slight reduction from PVIII, but there are more of these over the country as a whole.

5.1.4 Period X (1464-1544)

In 1464 the penny was reduced down to 12 grains (0.78g) marking the start of this 80-year Period. As in many other areas of archaeological material culture the late fifteenth- and early-sixteenth centuries were an era of transition and left a mark on the currency. New denominations, mints and styles of royal portraiture appeared in response to internal political and fiscal requirements, as well as external influences – notably the developments in coin and medal portraiture inspired by the Renaissance. This directly inspired Henry VII's new profile portrait on the larger silver coins. One of these silver coins was the 'testoon' worth a shilling and minted in small numbers. New gold coins appeared in the form of the ryal with its half and quarter, and the angel. This latter would become particularly well known and were still used in touching ceremonies well beyond the date of their last functioning as a circulating coin (Bloch 1973; Woolf 1979). New mints at Bristol, Canterbury, Coventry and Norwich joined London and York in the reign of Edward IV bringing minting to two new towns. In 1544 Henry VIII's third coinage was issued and for the first time in the English currency the alloy was debased. This marked the end of hundreds of years of English coins of good silver.

PX coins number 1216 of which 1169 have coordinates from 705 parishes and 1164 individual find-spots. English (1021) coins are most common but foreign coins again come

to make up a significant percentage of the corpus (13.6%).[81] The most prolific reign was Henry VII, with half groats and pennies followed by Edward IV with groats and pennies. Richard III's short reign is reflected in the small quantity of coins and perhaps surprising are the low levels of Henry VIII coins given the length of his first and second coinages.

Map 5.4 lays out the PX coin finds at a national level. The distribution shares similarities with both PVIII and PIX in the general extent of the finds geographically and those areas which are most dominant (this is more fully explored in the regional analysis below). In general there appear to be more sites in the South East and Yorkshire but maximum assemblage size remains at low at six coins suggestive of continuity of circulating currency. Despite the comparatively high numbers of coins the loss-per-year figure in PX is the lowest in the Phase and tells us that in the years after 1351 coin use generally continued to contract.

5.1.5 Hoarding patterns in Phase C

The hoard record from Phase C stands at 305 hoards, representing 174.8% growth over the shorter Phase B (1.2 hoards per year). Within Phase C these are unevenly distributed with Period VII (102) accounting for 33.4% of the total, PVIII (65) 21.3%, PIX (49) 16.1% and PX (89) 29.2% (Figure 5.11). The number of hoards per period bears close comparison with the overall number of coins in the sample showing a link between available coin and the hoarding of coins, although the PVII hoards are not as dominant over the other Periods as the single finds show.

PVII hoards recorded from England and Wales number 102 (average 1.4/year). In size these can range from small groups of five pennies like those excavated at the Dominican Priory, Beverley (Freeman 1996: 173-4) and at the Northumberland village of West Whelpington (Evans and Jarrett 1987)[82] to large deposits such as the Tutbury hoard which,

[81] The foreign element is largely derived from the Burgundian Netherlands (56) a second wave of Venetian soldini (55) and Irish coins of Edward IV (33) but coins of France (5), Scotland (3), Portugal and Low Countries (2) Bologna and Russia (1) are present in small numbers (Chapter 6).

[82] A small number of hoards from this period were recovered under archaeological condition and thus can add some important context for circumstances surrounding burial.

as the war chest of Thomas of Lancaster, comprised £1500 around 360,000 coins (Kelleher and Williams 2011: 67). This latter is so much larger than any other hoard as to skew the average size of hoards of this period. Cook has identified the PVII hoards as comprising either one or two shillings or one or two pounds in value with implications for what they are representative of (Cook forthcoming). The distribution of PVII hoards (Map 5.5) does not correspond entirely with the single find pattern. Dense single-find areas like East Anglia, Hampshire and the Sussex coast and the band of finds from Gloucestershire to Leicestershire are not rich in hoards although east Kent, Lincolnshire and the East Riding and Vale of York are. An east-west division is apparent regarding hoard size with those from Wales, the North West and the South West tending to comprise less than 200 coins. In the east hoard sizes are mixed. In the North East the pattern of hoards is interesting and at a greater scale than the single-finds. This period saw a huge increase in hoards from Scotland which led Metcalf to optimistically suggest that Scottish hoards of the period were more copious than those from England (Metcalf 1977b: 11). The pattern we see in the northern counties of England is linked to the movement of military men and materials through the region during the Scottish Wars. The pattern of increased hoarding and, more significantly, non-recovery in Northumberland (7), Durham (3) and Cumbria (4) hints at a time of danger and uncertainty. A similar group of small hoards in North Wales can equally be linked to Edward I's military activities and castle-building in the area.

In PVIII there are 65 hoards, averaging 1.1 per year, only a slight reduction on PVII. The distribution of hoards Map 5.6 bears little similarity to PVII other than the over-representation of finds from Northumberland and Durham and the number of hoards from the London area. Avon, Wiltshire and Dorset include finds where there had been few in PVII while in Yorkshire the opposite is true. The biggest hoards are widely dispersed, coming from the Cumbrian border with Scotland and Cambridgeshire; the largest find in terms of individual coins is from Beaumont (Cumbria) with *c.*2400 coins. The value of hoards, by virtue of the availibility of gold coins from PVIII rises perceptably with the average value per hoard standing at £8 13*s.* 4½*d*., a massive £7 more than those in PVII.

The largest of these is the Fenwick (Northumberland) find comprising more than 244 gold nobles.

The 47 hoards in PIX provide a loss-per-year figure of 0.9, the lowest in Phase C and range in value from 3*d*. to the *c*.£400 of the spectacular Fishpool (Notts.) finds whose contents of gold coins and jewels was undoubtedly the property of a senior member of the aristocracy (Archibald 1967). In PIX the distribution pattern of hoards is fairly well dispersed. They are generally found within the areas of single finds with some areas of concentration. Two clusters are visible, one in London and Surrey and the other in Leicestershire, Nottingham and Derbyshire. Why these finds were not recovered is unclear. The average value of the hoards increases over PVIII to £9 7*s.* 1½*d.* no doubt influenced by the disproportionately large Fishpool find. Of note is the 8.5% of hoards which include jewellery, this may reflect stores of wealth buried under emergency conditions and which were not subsequently recovered. In PX the 88 hoards provide a loss-per-year figure of 1.5 which is the highest in the Phase. The size of hoard ranges from just 1½*d.* up to *c.*£50 and averages £5 17*s.* 11½*d.* – less than in PVIII or PIX. The hoards are well dispersed with some clustering visible in Norfolk and Dorset/Wiltshire but otherwise they tend to be found in those areas where single finds are prominent.

5.1.6 Summary and interpretation

In reviewing the PAS data from this Phase we can see a significant shift from the coin finds in PVII to those of PVIII-X. This was the product of two interlinked varables; the structure of coinage itself and the size of the population. The effects of the Black Death, so explicitly visible in other archaeological material (*cf.* medieval cemeteries such as East Smithfield, Grainger *et al* 2008), must be seen as a key determinant for the conditions of coin-loss as fewer people should equate to fewer opportunities to lose coins. Allied with this fact is the idea that with a smaller population there were more coins to go round, although how this wealth was divided up geographically and socially is worthy of future research. The second issue was the new ways coins could express value. The introduction of gold coins probably took a significant proportion of available specie out of circulation and into semi-

permanent stores of wealth, at least when they were first introduced and these stores of gold coin would enable the expression and reinforcement of social hierarchies.

Patterns of production in which the mints favoured the minting of larger coins resulted in complaints about the lack of fractional in circulation. This initial review of the evidence shows the failure of the star-marked coinage to address the problem. In fact the majority of fractions in the dataset were the 1279-1335 types. Only detailed local-level analysis can start to unpick the complexities of dates of coin-loss and composition of currency. Analyses of individual weights combined with some idea of wear can help suggest deposit dates but is not a fully adequate method. Such an approach was impossible in this thesis as a major weakness of the PAS system is the inconsistent recording of weights (two decimal points are required for researchers), coupled with a general misunderstanding of what constitutes a clipped coin (as opposed to one struck off centre) or a worn coin from one struck with worn dies. This will not be remedied without universal standards and training.

5.2 Regional distributions

Identifying regional patterning of finds will be a key indicator of different levels of coin-use and monetization over the country as a whole. This section addresses the distribution of the PAS material (1279-1544). Figure 5.12 outlines the varying regional contributions to the corpus across the periods. Subtle patterns are visible in the shifting regional proportions of coins (Figure 5.13). East Central England and East Anglia show a slow but continuous decline over time in direct contrast to West Central England and Wales and the South East which grow (PX excepted). The small proportion of coins in the North and South West have differential patterns peaking in PX in the North and PVIII in the South West but these are minor. The finds data is analysed by two methods – each addressing specific questions. The first looks at the distribution of finds period by period looking for evidence of expansion and contraction and any key areas of activity. The second takes some key sites, both PAS and excavated and compares their chronological profile, thus building a picture of stages of growth and decline against the national background.

5.2.1 Northern England (Maps 5.9-5.12).

The Northern region accounts for 8.1% of the national corpus over Phase C with over half from North Yorkshire. PVII and PVIII are largely consistent with the national mean but the drop in PIX (6.6%) and rise in PX (9.6%) indicate periods of marginal decline and growth at a regional level. In North Yorkshire the hinterland of York (30km) and the alluvial plains and river terraces of the Vale of York, in particular the Ure and Ouse valleys, are important areas for coin finds in PVII and remain the key zones of activity into PVIII-X, although to a lesser degree and not consistently across all sites. A handful of coins are recorded from the higher ground of the Dales in PVII with little later activity. Finds come from the clay plains of the Vale of Pickering in PVII and after being absent or limited in VIII and IX return in PX with a focus on the river Derwent especially at Malton – a key nodal point in the landscape. In the East Riding individual finds skirt the edges of the Yorkshire Wolds. Durham and Northumberland have few finds, these are limited to the Tyne Valley, Warkworth and south of Durham in PVII and the Durham area in PVIII-X. In the North-West there are finds from Lancashire, between Preston and Blackpool, and in the tributary valleys of the Ribble while in Cumbria PVII coins have been found on the southern hills, the Eden Valley and Carlisle. From PVIII-X the fewer coins in the west focus on the main communication routes. Topography plays a large part in the distribution as it focuses not only historic landscapes and settlement but also modern routeways and agricultural land and therefore areas available for searching.

Moving to the profile analysis we see the northern mean is very similar to the national mean with PX raised at the expense of PIX (Figures 5.14 and 5.15). The northern assemblages tend to be smaller than those in the south and east with the largest coming from Snape (50) and the York excavations (53). These loosely follow the mean in the high proportion of PVII coins (55-75%), but display is some variation in the relative importance of the later periods with York showing a continual decline over time. Pocklington and Snape are close to the mean while Studley Roger has a high PVII value and low VIII and absent IX reflecting the decline in coin-loss from the mid-fourteenth century to mid-fifteenth before picking up again. This contrasts with the pattern at Well which has better

than average PVIII and IX figures but lower in PX. The evidence from Snape and Well townships is interesting as the two formed the same ecclesiastical parish (Page 1914: 348) revealing inconsistent coin loss patterns between neighbouring communities.

5.2.2 East-Central England (Maps 5.13-5.16)

The region accounts for 17.7% of the national corpus with Lincolnshire (45.8%) and Leicestershire (26.9%) responsible for more than two-thirds of the finds. The region sees a small 2% decline from PVII-X (18.3-16.2%). The highest finds densities are focused on the outskirts of Leicester, areas of the Trent Valley and the Humber Estuary. Elsewhere coins are broadly spread with a large number of find-spots in Lincolnshire contrasting with areas of few finds, particularly in the south and east of Lincolnshire and parts of Northamptonshire and Bedfordshire. Torksey and Sleaford are prolific parishes (possibly reflecting their attraction to detectorists as Anglo-Saxon/Viking centres) as are a number of locations on the Lincolnshire Wolds (Horncastle and Hatton) and on the Humber (Barton-upon-Humber, South Ferriby and Roxby-cum-Risby). In the north-west of the region assemblages become fewer and more scattered over the Phase but picking up by PX. Bedfordshire finds are limited to the north and west of the county in PVII but barely register subsequently. Activity in Northamptonshire is heavily focused on the area south-west of the county town. A second broader spread is found to the east at Norton and along the Great Ouse valley in PVII and echoed in smaller numbers in PVIII-X. Leicestershire maintains a very healthy quantity and spread of coins from PVII to PVIII with contraction in PIX and PX particularly on the western fringe of Leicester itself, the Ashby-de-la-Zouche canal and the area along the Roman road (A5) near Sutton Cheney.

The regional and national mean are almost identical (Figure 5.16). PVII is consistently dominant and in some cases, such as Barton-upon-Humber, Collingham (Notts.), Hatton (Lincs.) and Kislingbury (Northants.), accounts for over 80% of assemblages at the expense of later periods. The Barton profile is interesting in the absence of coin finds which should reflect the position of the town as the major crossing point across the Humber to Hull and known to have been used by Edward IV in 1464. Other assemblages are closer to the

mean but with peculiarities; Brooke is strong in PIX while Sleaford and especially Norton finish strongly in PX indicating growth in coin-loss at the end of the Phase.

5.2.3 West-Central England and Wales (Maps 5.17-5.20)

The region accounts for 14.3% of the national corpus with only Warwickshire (27.5%) responsible for more than a quarter of the finds. The region sees small period-on-period growth from PVII-X (13.8-16.5%). The principal area for coin-finds in the region is a 60km swathe of country running from the Gloucester area north-east through Worcestershire and Warwickshire to Coventry. Coins in Staffordshire, Herefordshire, Worcestershire, south Shropshire and Derbyshire are scarce with occasional hotspots of activity in PVII tailing off significantly in PVIII and PIX before recovering in PX. On the Cheshire Plain and in north Shropshire single-finds are more profuse. In Wales the larger part of the corpus comes from south-east of the Usk Valley and in the Vale of Glamorgan with other clusters near Swansea and in Pembrokeshire. Elsewhere in Wales finds are extremely scarce but are occasionally found on high ground in some locations.

The regional mean matches the national mean well and is perhaps stronger in PX than earlier (Figure 5.17). There are a number of parish assemblages of size in this region including the significant site at Llanfaes. As in previous regions the profiles are dominated by PVII coins with most sites enjoying 55-65%. Only Bidford (69%) and Llanfaes (89%) are above this and in the case of Llanfaes we know that the town was forcibly transplanted under Edward I thus terminating the activities which generated coin-loss there (Besly 1995). The Warwickshire parishes of Brailes and Warwick share the distinction of having a stronger than average later profile particularly in terms of PVIII and IX. Alcester and Newbold Astbury are similar in their tailing off in PX. There is no general site-profile in the West Central region.

5.2.4 East Anglia (Maps 5.21-5.24)

In East Anglia Norfolk and Suffolk are prolific with finds. The region accounts for 26.8% of the corpus in total but by Period this shrinks slowly from 28.2-22.8% over the Phase. The

finds are mostly distributed in Suffolk (48.4%) and Norfolk (38%). Suffolk has a large quantity of find-spots with larger ones concentrated in an area between the Stour and Waveney rivers with prolific sites at Covehithe, Westley (near Bury St Edmunds), Bergholt and East Finborough. In Norfolk there is a concentration of sites on the Fen edge near Wereham and a large number of clustered, prolific sites running from Alderford to the coast at Blakeney. The Cambridgeshire sites cluster on the Suffolk and Essex borders south and east of Cambridge while in Essex are focussed in the north of the county. The drop off from PVII to PVIII is most visible in the disappearance of the smaller sites and those still active in PVIII, IX and X tend to come from those with a significant PVII assemblage and therefore probably reflect more heavily detected sites. Sites along the north-east Norfolk coast diminish in productivity into PIX and occasionally the odd site like the Stukeleys (Cambs.), will come to life for a short time with a large number of coins of one period.

The regional and national means are almost identical but, are marginally higher in PVII and lower in PX (Figure 5.18). A good number of parishes have significant assemblages and these display profiles with minor variations. Covehithe and Bromholm have 127 and 70 coins respectively making them more reliable indicators of the changing patterns of loss. A range of profiles is present. Some, like Dunwich, Great Witchingham, Roxwell, Wereham and Westley are heavily biased toward PVII with over 70% of coins from this Period. The explanation for Dunwich's low levels of loss in later periods comes from the historically documented problems of encroachment by the sea which all but destroyed the town as a viable economic and civic entity. This explanation cannot be ventured for the other sites which will require focused studies to interpret the environment in which the single finds data can interpreted. Other sites, like Isleham, have very minimal finds in one Period.

5.2.5 South-Eastern England (Maps 5.25-5.28)

The region accounts for 27.1% of the total Phase finds showing slight growth in the national share from Period VII to X. Of the many counties grouped in this region it is Kent (19.1%), Hampshire (18%) and the Isle of Wight (16.3%) which stand out. The Kent and Hampshire prevalence is unsurprising given that both counties were part of the pilot

scheme, while the Isle of Wight is widely recognised as exceptional for its very high-levels of recording of portable antiquities and is visible as a dense cluster on most finds maps (Walton 2012; Robbins 2012). In the south-east London finds are limited to two Thames discoveries while on the edge of the urban area finds from Bromley, Epsom and Barnet reveal the activity of detectorists in searchable fields close to towns (Robbins 2012). In Kent finds generally continue to be absent from the Weald apart from a few finds in the Rother Valley and from the clay and marl lowlands below the North Downs. The key areas of finds are the Great Stour valley around Canterbury and a concentration of activity on the low-lying marshlands of New Romney. In north Kent finds are scattered along the chalk ridge of the North Downs (broadly following patterns of nucleated settlement seen in Map 3.5) into Surrey with several prolific sites like Clandon Park and Wanborough of note. A similar pattern is seen on the South Downs from the concentration of finds from Firle running west and north-west into the Hampshire basin and the Itchen, Test and Avon valleys. Finds numbers on the Isle of Wight are again disproportionate to its size and are mostly from the west of the island. In Oxfordshire, Buckinghamshire and Hertfordshire the finds pattern is scattered along the Chilterns.

The regional mean is almost identical to the national mean (Figure 5.19). The assemblages within this region display a range of profiles which in general conform to the mean with similarities in both rural PAS material and urban excavated finds. The two sites with anomalous profiles are Battle Abbey and St Augustine's Abbey whose profiles suggest monetary activity which was not integrated into the general regional picture but reflect site-specific activities. Excavated evidence may however give us data from a fixed place and time and not represent the character of a site more broadly.

5.2.6 South-Western England **(**Maps 5.29-5.32)

This region is the least productive for finds averaging 6% of the national assemblage. Within the region however the finds are more evenly spread among the counties than in previous periods where Dorset and Wiltshire had been dominant. Wiltshire is most productive (33.8%), followed by Somerset (20.8%), Dorset (18.8%), Cornwall (17.6%) and

Devon (9%). The pattern of finds is more widespread than in Phase B indicating a fuller engagement with a monetised economy, at least in PVII and PVIII. The Stour and Frome valleys are a focus for some activity as is the area around Kingston Deverill (Wilts.). On the Bristol Channel Bridgwater and Stogumber continue to produce finds suggesting the development of a thriving coin-using base linked in to the Bristol Channel and perhaps networks of trade and contact across to South Wales. Devon finds are limited to the southern promontory below Dartmoor probably linked through coastal trade with Exeter and the south coast while in Cornwall the majority of find-spots are in Marazion and Paul on Land's End and continues the strong coin presence found there from PV.

The regional mean is almost identical to the national mean (Figure 5.20). Six assemblages are large enough to permit some interrogation of the data. The two Cornish sites at Hayle and Marazion are most akin to the regional mean although they tend to have fewer finds after PVII. The other sites at Halstock, Market Lavington and Stokenham do not have the dominant PVII profile and instead show a later acceleration of coin use. This probably indicates the position of the sites relative to the centres of coin use in major towns and the eastern half of the country.

5.2.7 Summary and interpretation

Coin-losses have been shown to increase significantly in PVII in line with the huge numbers of coins known from surviving hoards and documented in mint records. The geographical spread of coins seen at the end of the previous Phase was not extended in Phase C, rather it seems, monetization broadened *within* those areas where coin use had earlier been established by the large outputs of the Short Cross coinage, and to a lesser extent, the Long Cross. There were however some parts of the country in which coin distribution expanded in PVII, notably areas of the South West and parts of Cheshire and Lancashire. Over the Phase coin-find numbers drop rapidly, probably the result of a combination of the smaller population, the lower levels of silver output from the mints and the emergence of gold coins. In Phases A and B the role of the town was vital to the development of coin-use in the rural communities it served. By PVII the distributions and

site profiles suggest that rural coin losses were no longer stimulated solely by the major commercial centres but rather of more local markets. A complicating factor of the PAS data is to be found in the large numbers of finds made close to towns which, rather than being the product of ancient losses derive from the detecting habits of treasure hunters from those towns; Leicester and Northampton are the key examples of this bias.

5.3 Denominations

The biggest change in the denominational make-up of the English currency took place in this Phase. Silver pennies had been the only coins struck on any significant scale before 1279. At first pennies still dominated production through the combined reluctance of the mints to strike halfpennies and farthings, and the unsuccessful introduction and subsequent withdrawal of four-penny groats. This was set against the backdrop of fluctuating silver supplies and the gradual reduction in bullion entering the mints, which by the mid-1330s had almost ceased.

Period VII

Despite the innovations in denominations minted over the course of PVII, their impact on the finds record is minimal. Edward I's short-lived groat issue lives in a single find from Blakeney in Norfolk while none of the three sequential incarnations of gold coins from 1344-1351 are known as finds. The absence of groats as single finds is not unexpected as only two earlier examples are known, one excavated at the Bedern in York in the 1970s and a find from Cornhill in London (Pirie 1986; Allen 2004a: 29). The Dover hoard included two English groats (Dolley 1955a) but examination of the contents of the hoard shows a large proportion of foreign coin – making the finds unrepresentative of English currency. Three groats from a poorly recorded site at Sprowston, Norwich are known only from their sale at auction (Allen 2004a: 29) and the paucity of surviving evidence reveals how effectively they were withdrawn from currency. The pennies, halfpennies and farthings profile (Figure 5.21) diverges significantly from that in PVI, when pennies could be cut to produce fractional coins. Pennies (at 85%) are significantly more prevalent than halfpennies (7%) and farthings (8%). Mint output in PVII can be broadly divided into three

phases each with different characteristics. The first, covering Edward I-II and the first eight years of Edward III is responsible for the majority of the surviving coins. Contemporary complaints about the lack of small change led to the minting of a second coinage composed entirely of halfpennies and farthings (1335-43) at London.[83] In 1344 the mints started producing what numismatists call the 'Florin' coinage consisting of gold coins, from which the period gets its name, as well as pennies, halfpennies and a small number of farthings. A breakdown of the finds by these coinages is shown in Figure 5.22, and highlights the ineffectiveness, at least in terms of surviving coins, of the measures taken in 1335 to alleviate the shortage of small change.

Distribution maps of the PVII denominations have limited use (Maps 5.33-5.35). The relative ubiquity of pennies is revealed in the distribution almost replicating the general PVII finds distribution. The halfpennies and farthings share distinctly similar geographical locations, this really is a reflection of the location of those areas and sites with larger assemblages, thus smaller coins are found, but among larger groups in proportion to that seen in Figure 5.21. Comparing the incidence of different denominations by county highlights the sometimes random nature of the evidence but also brings in some interesting parallels. The data (Figure 5.23) shows the generally low levels of fractions in all areas but of interest is the picture from London which heavily favours fractions compared to the mean. Although only a small sample, supporting evidence for fractional use comes from an excavated skeleton found at the Black Death cemetery at East Smithfield. The body of a woman aged 26-35 was accompanied by two distinct groups of coins (Grainger *et al* 2008: 15). One comprised mostly of pennies was probably in a pouch slung under the shoulder, whilst a second group, consisting of mostly fractions was located near the waist. These two groups may represent sums of ready cash for use in different contexts with the small coins more readily to hand (Cook 2008a: 236). The active omission of fractional coins from hoards of this Phase in general is more than just the result of a lack of coins in circulation reversing the trend, which had been growing over Phase A and B, for fractions to increasingly becomes incorporated in hoards.

[83] A small number of coins struck at Reading are known from the second 'star-marked' coinage and the third 'florin' coinage. One of each period is present in the dataset reflecting the small scale of the issue.

Excavated evidence from this Period is more ubiquitous than any other with 524 coins in the sample (Appendix C). The denominational breakdown from most sites follows the general pattern seen in the single finds. However several sites show differences worth noting. At Whitefriars and St Augustine's Abbey (both Canterbury) the fractions outnumber the pennies 6:4 and 6:1 which might be a useful indicator of the types of coins used by visitors to monastic sites, perhaps invested with a special function on site as a preferred offering piece. Indeed a burial at Hatch Warren (Hants.) was buried with two Edwardian halfpennies in the grave (Fasham and Keevill 1995) which might support such a hypothesis. Coins from urban sites do not provide a consensus picture; the Vintry has the largest proportion of pennies at nearly 50% while at Dunwich, Colchester and Oxford the fractions account for more than half of all finds.[84]

Period VIII

This period is characterised by the minting of gold coins for the first time but also in the increased provision of fractional coins and the appearance of groats and half-groats on a permanent basis. Figure 5.25 shows the proportions of this new 'set' of silver coins available. Almost half of coins were pennies, followed by groats and half-groats, halfpennies and finally a small number of farthings. By looking at this data in a slightly different way (Figure 5.26) we can see how the larger value coins impacted the division of value of the circulating medium. Nearly half of the value of the PAS finds is bound up in groats (47%) with another 23% in half groats and pennies accounting for 26% of the silver currency. Figures 5.27 and 5.28 present the finds by type and ruler. In terms of production Edward III's fourth coinage introduced the majority of the PVIII sample with Richard II's reign important for the large numbers of pennies and halfpennies minted.

Maps 5.36-5.38 compare the distributions of the silver and gold coins in PVIII. In most cases the denominational spread is fairly even but two points of note are worth highlighting here. The first concerns the distribution of the halfpennies compared to other

[84] The Colchester and Oxford totals were generated from very small assemblages (6 and 5 coins respectively).

denominations. A clear zone running from Herefordshire up to Leicestershire marks the boundary for losses of halfpence, to the north-west of which is just one single find. The farthings are also all within this zone but favour Kent, East Anglia and parts of the Midlands. The second pattern concerns gold coins. Quarter nobles are fairly widespread with the nobles and half-nobles in central and southern areas. Of special interest is the clustering of gold coins in the same Midlands zone as the halfpennies and potentially speaks of a highly developed and diversified level of coin-use in the region. Further study is required to pursue this question. A second cluster of gold coins is found along the south coast from Sussex to the Solent and westwards to Devon which is no doubt linked to coastal seaborne trade centred on important ports like Southampton.

Period IX

Period IX witnessed the first serious incursion of foreign coins since the sterling imitations of the early fourteenth century. These were in the form of Venetian *soldini* which came to England with the annual trading fleets and are more fully covered in Chapter 6. They are mentioned here as they seem to have been expressly used in lieu of English halfpennies which were only produced in small numbers. Figure 5.29 displays the PAS coins by denomination. The penny remains the coin most often recovered but its share of the total diminishes in favour of halfpennies, as do the halfgroats. Expressing this data by the penny-value of the coins (Figure 5.30) shows that more than half of the silver is bound up in groats (55%), with 23% in pennies, 13% in half-groats and 9% in halfpennies showing broad consistency with the PVIII material. Figure 5.31 presents the finds by type and ruler. Henry VI's reign accounts for the vast majority of the PIX coins and within the reign these are mostly from his Annulet and Rosette-mascle types (dated from 1422-30) indicating, as we saw in earlier periods, that a large number of coins were minted from the existing currency at the start of a new reign or coinage (Figure 5.32).

Maps 5.39-5.40 are interesting in revealing both continuities and discontinuities from PVIII. The smaller silver coins are distributed fairly consistently with PVIII other than in Cheshire where all small denominations are scarce, contra to this though is the relative

abundance of groats and half-groats seen in the immediate area. The reverse of this pattern can be seen in North and East Yorkshire where the small silver coins are widespread but the large ones are not. The PIX gold distribution (Map 5.41) sees the coins in East Anglia, Lincolnshire, Kent and central and southern parts of England. Outliers in Cheshire, Dorset and Cornwall extend the distribution slightly but their absence from northern and western England and Wales suggests circulation and use were focused on specific places like high status sites. Of the excavated gold coins in the dataset three were from the high-status residential sites at Codnor Castle (Derbs.), Wolvesey Palace (Winchester) and Malvern Abbey while a London and Caistor find suggest links with merchants and important trading places.

Period X

Period X witnessed a second serious incursion of Venetian *soldini* as well as Burgundian double patards. These large silver coins were permitted to circulate legally at the value of a groat by an agreement between Edward IV and Charles the Bold (Spufford 1964), these are explored in Chapter 6. Figure 5.33 displays the PAS coins by denomination. The pennies and groats remain in exactly the same proportions as in PIX showing continuity of production and use. The halfpennies however diminish in number in favour of the half-groats. Expressing this data by the penny-value of the coins (Figure 5.34) shows the penny is fairly consistent and the only major change comes in the share of the half-groats. Figure 5.35 presents the finds by type and ruler and shows that Henry VII and to a lesser extent Edward IV contributed most to the circulating coinage in PIX. The denominations however differed between reigns. In the early part of the Period groats and pennies were most often in use, whereas under Henry VII half-groats were produced in significant numbers. If production reflected need then this change over a couple of decades is an indicator of the utility of a two-penny coin.

The distribution of silver seen in Maps 5.42-5.43 shows some loose patterning. Halfpennies are less visible in Cheshire and Lancashire where other denominations are present suggesting some variation in the use of smaller value coins but otherwise there is

a general sense that all denominations were in use nationally. Map 5.44 plots the gold coin distribution. Central England and East Anglia again feature most prominently alongside London, North Yorkshire and a small group of coins in Hampshire and the Isle of Wight.

The new denominations made available after 1279 appear to have been taken to with different results. The minting of small silver coins replaced a centuries old practice of cutting pennies and in a sense removed the ability of the consumer to affect their own money in this way. A second issue bourn out by the finds was the lack of sufficient fractions for use. Historical sources hint at the unsatisfactory provision of halfpennies and farthings and the small number of extant finds – compared to pennies – shows the lack of small coins may have had a negative effect on prices. A small number of pennies in the dataset have been neatly cut in half suggesting a method of producing change in the old manner. A further point worthy of future research is the idea that non-coins came to be used as unofficial small coins; an obvious candidate being the jettons which are found in numbers and contexts which suggest alternative, perhaps 'monetary' functions.

The larger silver coins – the groats and half-groats – did not appear in extensive use until 1351 but once available were readily accepted. The finds show a sustained and significant presence in currency which grew over the Phase. The introduction of gold is seen in single-finds from 1351 when production was established. They were available in numbers suggesting a high level of use, especially the quarter-nobles and find-spots show use over a large part of southern and eastern England, linked into south coast shipping routes, urban commercial centres and high-status sites.

5.4 Mints

In Phase C the structure of minting underwent further change. The most obvious was the overall reduction of mints to a small core group often, as in the case of York and Durham, responsible only for one small denomination. Figure 5.36 shows the mints in operation in each Period.

In PVII the mint network consisted of more than a handful of mints only in the initial recoinage 1279-81 (classes 1-3) and the partial recoinage of 1299/1300 (class 9). During the other issues the bulk of output fell to London and Canterbury with Bury, York and Durham minting at various times. The shape of the network shows some subtle variation from the Long and Short Cross issues (Figure 5.37). Kingston-upon-Hull appears in 9b replacing Lincoln which was active in 3; Winchester is entirely absent while Berwick mints an irregular issue after its capture by the English in 1296. The placement of mints has been seen as an indication of areas of wealth (Archibald and Cook 2001) but perhaps there was also an element, particularly in 1300 with the addition of Hull, of putting mints where the problems of counterfeiting and clipping were most keenly felt.

The bulk of PVII production fell to London with Canterbury at around 40% of the formers total and other mints of small significance. Into PVIII the network shrinks to four mints (Figure 5.38) with London at its head and York and Durham acting in a supporting role. Calais is a very minor player at this stage. In PIX the role of Calais in the supply and use of English coinage shifts dramatically as it becomes the most active mint for individual coins finds, followed by London and with Durham and York of minor importance (Figure 5.39). In PX London once again resumes primacy in mint output (Figure 5.40). The support mints – Canterbury, Durham and York have a significant role and it is telling that the three new mint towns of Bristol, Coventry and Norwich are in prosperous areas where coin finds are many and denominationally diverse.

5.5 Mapping medieval monetization: Conclusions

Any discussion and analysis of medieval coin finds evidence, particularly when derived from metal-detecting, must be tempered with an appreciation of the limits of the source material. As this study is the first of its kind much of its value has been in opening out the data and 'number crunching' to provide a platform for specialists in other specialist areas to test their own material. Having said that the long chronology covered in these three

chapters has provided a solid basis, both methodologically and in terms of the findings, for addressing the main research questions posed in this thesis.

Coin use was constrained at all times by the availability of coins and therefore external silver supplies. In Phase A production was at a relatively low-level with only minor growth in the coin pool throughout Phase A and into Phase B. In PV the landscape changed massively and we find finds numbers rise exponentially thanks to an increased availability of silver meaning that the newly available coins were taking over transactions previously settled in different ways. At the same time as the growth in output a reduction in production centres is visible with one or two mints monopolising output; this does not seem to have impacted the distribution of coins in areas where mints were not active. By the same token the distribution does not correlate with the mint network when it was at its greatest extent in PI-II. Indeed finds seem drawn eastwards from the western mints. As the diversity of coinage increased after 1279, and particularly from 1351, the new coins appear to have been quickly absorbed into the currency and from the user's perspective, offered new ways to store and spend money. Gold coins are known as single finds in small but significant numbers, and it is perhaps remarkable to find so many given the time that would have been spent in searching for a lost quarter-noble.

Distribution mapping has been a vital tool in tracking the development of coin-use in this thesis. The overall pattern can be summarised as one of expansion from east to west. The evidence suggests that, outside of the major towns, rural communities did not engage fully with coins in the early periods, although the evidence from East Anglia and to a lesser extent, Lincolnshire shows that a certain level of coin-use was in existence prior to the later periods when more coins allowed greater expansion. At all times major routes, such as roads, rivers and the sea appear to play a vital role in the transmission of coins from one area to another. By PVII the distribution was at its largest extent and with the subsequent reduction in the numbers of coins minted in PVIII-X regression was within the regions rather than national.

The profiles of coins from different sites, particularly in Phase A, suggests strongly that the tradition of coin-use originated in major towns but that as supply increased the smaller towns and villages developed their own economic identities. Later profiles can be random and not conform to any set of explanations but what they have shown is the differential engagement with coinage from a chronological perspective and revealed that within relatively small communities major differences can be seen in when and to what extent coin-losses occur. It has not been possible within the confines of this thesis to pursue detailed study of the nature of the sites but this is the obvious next stage of research in this area.

An important aspect of this research has been to compare the single finds evidence against other forms of numismatic data. The comparison with hoards has been a very fruitful venture and has shown that single-finds reflect specific conditions of loss and interaction with money but are not a good indicator of the availability of coins in a region. In all periods, but particularly those with fewer single finds, hoards are found beyond the limits of the single-find distributions. This suggests that coins in hoards were perceived differently by their owners and were infused with meanings associated with storing and possessing wealth. This is in opposition to the everyday nature of single finds and their association with small payments and the marketplace. One of the key findings in this thesis relates to the denominational changes seen over the 500 year chronology. Before the introduction of silver denominations smaller or larger than the penny coins were cut to produce smaller units. The fact that fractions increase over time is good evidence for the changing functions of money which can be assessed based on the evidence of high fractional use in the commercial centres of towns, like London (Vintry) and Dunwich. When round halfpence and farthing were produced under Edward I the dynamic changed. People could no longer effect change to their coins and the lack of provision of these pieces would have had a negative impact on what coins were used to buy and prices more generally.

CHAPTER SIX

IMPORTED COINS

Introduction

This chapter is the first complete survey of foreign coins in the Middle Ages across England and Wales to make use of the PAS and other source material. It draws together coins from almost all the countries of northern, western and Mediterranean Europe and considers them as a single interrelated body of evidence. In doing so it makes use of the chronological structure introduced in Chapter 2 to expand on recent studies by, for example, Cook (1999a), who used both historical and archaeological evidence to demonstrate the important role played by foreign coins. The intention is not only to examine coinage from individual sources but also to analyse broader changes in the use of foreign coins as a whole. The questions central to this chapter concern the conditions that encouraged or discouraged the movement of foreign coins into England and Wales. How did the political climate influence their arrival and what measures were enacted in response to foreign coins? What impact did non-English coins have on the economy? Did particular coin serve to fill gaps in the currency when mint production was at a low ebb or absent? How did they enter the country and how were they used? More detailed analyses, of the Scottish and Irish coinage of the twelfth century and imitation English pennies in the thirteenth and fourteenth centuries, will highlight particularly important developments. The aim is to use numismatic evidence to observe patterns of contact and interaction between the study area and the rest of Europe.

6.1 The data

Of the corpus of 1,992 foreign coins to be discussed in this chapter, 1,318 were recorded by the PAS while the remainder derive from published single finds and excavation.[85] In all,

[85] Published sources of single finds are generally biased in some way, either in the material they discuss or the areas from which they derive. For example almost all Scandinavian coins ever found (due to their rarity) in Britain are covered by Archibald (1991a) whereas all Venetian coins will not be. Norfolk finds have a long tradition of publication in the *British Numismatic Journal's* Coin Register. Excavation coins come from sites which necessarily do not present a broad geographical sample.

some 7.58% of the PAS coins on the database come from non-English mints.[86] Other sources employed here include coin hoards, which provide a measure of control against which single finds can be examined, and historical documents which begin to provide significant information from the thirteenth century onwards. Documents are particularly helpful when elucidating levels of coin production, attitudes to consumption, the provision of particular types of coins and the legislative measures taken against coins when they were deemed to threaten the integrity of English currency. They also reveal to us the types of material apparently in circulation for which there is currently no finds evidence at all (and vice versa). This has particular implications for earlier periods where there is so little evidence, and we have to rely almost wholly upon the finds themselves.

Map 6.1 shows finds of foreign coins by source, usually a mint or city, but occasionally according to region or national location if the exact production site is unknown. Although it does not distinguish between coins from different periods, the figure does provide an idea of the main sources of coins in the corpus. The number of coins known from each source is listed in Figure 6.1.

In summary, Scottish coins are most prolific, the majority being pennies equivalent to English coins minted from 1180-1351, after which time progressive reductions in the weight of the coins and debasement at the Scottish mints made their circulation in England untenable (Bateson 1997: 72-3, 86ff). Second in number are coins from the Low Countries; the bulk of these being thirteenth-fourteenth century imitations of the English penny (251) or double patards minted by the rulers of the Burgundian Netherlands (88) which hold the distinction of being the only continental coins legally permitted to circulate before the sixteenth century (Spufford 1964). Ireland comes next and here coins were minted intermittently under English authority from the lordship of John prior to his assumption of the throne in 1199 to Henry VIII. Italy also features as a prolific contributor, most coins coming from the north and Venetian coins in particular making up 89.69% of the Italian total. French coins are the fifth largest contributor at 120 coins, the majority of

[86] This excludes English coins were struck at Calais from the reign of Edward III to that of Henry VI.

these from northern France with a group of Anglo-Gallic pieces from Aquitaine. Only Portugal contributes more than 50 coins after the five greatest contributors, the majority of these being fifteenth century in date. The remaining countries contribute less than 40 examples; the German and Scandinavian coins being mostly early issues dating to the eleventh and twelfth centuries. The Spanish material is modest but consistent from the early thirteenth century, contrasting with Baltic coinage which comes from a notably tight date range *c*.1350-1430. The Byzantine coins are eleventh century with a few later examples, as are the Islamic gold coins from Spain and North Africa. The remaining coins come from a range of sources and are exceptional finds rather than conforming to any particular patterns.

The distribution of all foreign coins appears on Map 6.2. A conventional interpretation of this distribution would be that ports and cities are the obvious focus for finds of foreign coins (Metcalf 1998: 89). This is partially true, for example in the case of ports where exchanges were set up to intercept foreign coins and exchange them for English ones. However, evidence for either the breakdown or possibly complete circumvention of such controls at various times is revealed by the penetration of finds beyond these coastal and urban limits, particularly their occurrence in rural communities. This is a theme to which we shall return.

Before beginning the discussion of foreign coinage by period, two points are worth emphasising. Firstly, some of the areas which are here defined as 'foreign' were in fact under English control at certain periods (for example, Ireland and western France) and so the term 'foreign' is not itself entirely satisfactory. Secondly, only in exceptional circumstances were foreign coins manufactured with reference to the currency in England, so the period division system used in this thesis is not a framework into which these foreign coins fit comfortably. As a result, some coins inevitably straddle more than one period.

6.2. Periods I-IV (1066-1180)

Beginning with a review of foreign coins in Periods I-IV, it is apparent that hoards dated 1066-1180 tend to exclude foreign examples. Undoubtedly the *renovatio* system of frequent recoinages would have accounted for the removal of much foreign coin circulating in PI-III. The 39 hoards securely dated to PI are almost exclusively of English coins of William I and II. The exceptions are the nineteenth century find from 'Walbrook' in London[87] which included both Danish and German coins, and the penny of Magnus the Good found on Salisbury Plain along with a penny of William I and interpreted as a small hoard. Although the Walbrook hoard consists of over 7,000 coins and the foreign element – two Danish pennies and one German pfennig – are a tiny fraction of the whole, the sources of foreign coins are representative of the main sources seen in PI – namely Scandinavia with further coins arriving from the German mints that exploited the prolific silver mines of the Harz Mountains in Saxony (Spufford 1988: 74). The 18 PII (1100-1135) hoards contain exclusively English coins of Henry I while in PIII Scottish pennies are the only foreign coins to feature in three of the 26 hoards recorded. In PIV a combination of Scottish (Lark Hill and Outchester) and French (Lark Hill and Cwmhir Abbey) coins feature in three of the 23 known hoards, though the Cwmhir Abbey find consists only of French coins, so its interpretation as reflecting currency must be dubious. However, it was clearly part of the belongings of someone in Wales at that period.

There is some degree of overlap in the kinds of foreign coins that entered England before and after the Conquest. In Metcalf's survey of single finds *c*.973-1087 foreign coins registered 4% of the total, deniers from Normandy (south-east distribution) and Norwegian coins (along the east coast) being the most common imports (Metcalf 1998: 85). The combined dataset shows foreign coins from a variety of sources in Periods I-IV: Scotland (19), France (25), Germany (14), Scandinavia (17), Byzantium (8), Islamic lands (8), Italy (3) and Hungary (1). Scottish coin-production did not begin until 1136 under David I but is still represented by 19 examples. Irish mints under English authority did not begin production until John's reign, although Hiberno-Norse coins – usually confined to

[87] This hoard has been known under the various names 'Walbrook', 'City' or 'Queen Victoria Street' (Appendix A21), Walbrook is preferred in this thesis.

Ireland, the Isle of Man and Scandinavia – have been recovered, one at Meols and two from excavations at Trowbridge (Wiltshire. Graham and Davies 1993). French royal coins number just three (all from the Vintry site in London), while there are 22 feudal issues.

6.2.1. Scotland

The striking of coins by Scottish kings began with David I's capture of the town and mint at Carlisle in 1136. His subsequent issues imitated the poorly worked contemporary English coins of Henry I and Stephen (Bateson 1997: 39; Grierson 1991: 91). Prior to this, English coins were used in Scotland and for much of the eleventh-fourteenth centuries they were the dominant element in currency[88] (Stewart 1967: 1). Studies of single finds bear this out (Mayhew 1977: 101; Holmes 2004: 263-79). However, despite the relatively small output from the Scottish mints their coins did travel and seem to have intermingled with those in England. The first Scottish pennies, of David I and his son Earl Henry, were struck contemporaneously with the English issues of Stephen in the period of instability when the right of striking coins had been granted to many minor nobles. David, as the uncle of Matilda, supported the Angevin party. Seventeen coins of David and Henry are known as are two pennies of William the Lion's early (*c*.1165-74) and Crescent and Pellets coinages (*c*.1174-95).[89] These are summarised in Figure 6.2; seven were recorded by PAS.

Scottish coins are not common in hoards but are present in three from Period III and two from PII. The northern bias for twelfth century Scottish coins proposed elsewhere (Cook 1999a: 240) is here reinforced by the inclusion of recent finds Map 6.3. Their geographical range is primarily limited to the Borders and northern counties but also as far south as Lincolnshire, usually close to the major river systems, with finds in the major southern cities of London and Winchester and occasional coins in the south east and East Anglia. This pattern suggests a link with trade networks along the major river arteries and in the principal towns. It is noteworthy that the PIII urban and southern finds from Norfolk, Surrey and Kent are all cut fractions rather than whole pennies suggesting deliberate

[88] The proportions of coins in the Montrave hoard give a figure of 20 English to every Scottish coin (Stewart 1967: 34).
[89] These latter were based on Henry II's *Cross-and-Crosslet* coinage struck 1158-80.

cutting of 'foreign' coins. In Cumbria, Durham and Lancashire, Scottish coins are the *only* finds so far recorded, while in southern counties like Kent, Hampshire, Norfolk and Surrey they provide a maximum proportion of 33%. These latter counties have a longer tradition of metal-detecting.

6.2.2. France

In the tenth and eleventh centuries the right to strike coins was granted away from central royal control to nobles (Spufford 1988: 100; Mayhew 1988: 19-21). The mints remained in theory under the authority of the king, but some feudal coins did deviate from royal weight standards or silver content and conversion tables between types from particular mints become standard reference points (Cook 2006: 670). Three coins of the French kings and 22 feudal issues have been identified (Figure 6.3).

The majority of these French coins originate in northern and western France, from Normandy, Dreux (whose coins circulated to some extent in Normandy, Moesgaard 1992: 36), Ile-de-France, Brittany and from Anjou with a coin each from the southern towns of Toulouse and Maguelonne. The largest single group is the 11 deniers of Normandy, minted anonymously 1050-1100, and to these may be added earlier excavation evidence from Southampton[90] and the hoard of Cnut coins at Halton Moor hoard (Dolley 1975: 326-8). After the reign of Philip I royally-struck coinage became more plentiful at a time when coins were becoming scarcer all over Europe, something that was partly achieved by the debasement of the coins from 67-58% silver (Mayhew 1988: 63).

The distribution is primarily southern and eastern (Map 6.4) south of the Humber with a major concentration of 15 from London. Four examples come from Norfolk and Suffolk; five from Sussex, Hampshire and the Isle of Wight; and one each from Cambridgeshire and Northamptonshire with the most northerly finds being from Lincoln, Nottinghamshire and Manchester. French material is found especially in hoards in the west so that the Lark Hill (Worcester) hoard included 15 coins and there is the hoard of at least 13 French and

[90] Where a rouleau of 22 Norman coins was found in a pit dated *c.*1030.

Anglo-Gallic coins from Cwmhir Abbey, probably the property of a traveller rather than money taken from circulation (Cook 1999a: 239). As the principal port of England it is no surprise to find the majority of the finds in London, with the Vintry providing 44% of these coins,[91] but clearly finds from other major cities (such as Winchester and Lincoln), royal and manorial estates (Carisbrook Castle and Faccombe, Hampshire) as well as from more rural areas point to a currency which, under certain conditions included French coins. From the reign of Henry II to John the Pipe Rolls show debts and dues expressed in continental money, particularly *livres angevin* or *mansois* (Cook 1999a: 239-40). Given that many English landowners maintained property in France, for example the De Solers family at Faccombe (Fairbrother 1990: 71), some degree of movement of coinage is to be expected, but what does it represent? Likewise the spheres of contact enjoyed by mercantile urban centres, royal estates and ecclesiastical institutions might be expected to have realigned on a French axis after the Norman Conquest.

6.2.3. Germany

German coins of the eleventh century are thought to have been a key source for the silver used to strike English coins (Cook 1999a: 237). Nevertheless, a small number of these seem to have escaped the crucible and are known as finds. As was the case in France minting in Germany had become widely dispersed under the Ottonian kings in the tenth and eleventh centuries, but instead rights were granted to abbeys and bishops rather than to Counts (Spufford 1988: 100). Apart from a solitary Henry III pfennig from the Period I Walbrook (London) hoard, there are 14 single finds of German coins up to the mid-twelfth century (Figure 6.4).

The three primary contributors are coins of the Emperor Henry IV, the archbishopric of Cologne and the bishopric of Utrecht. Cologne coins were among a handful of continental issues that maintained a good standard of weight and fineness.[92] They provide two small contributions as the English dataset, three from the time of Anno (in the mid-eleventh

[91] 69 coins from the Vintry are illegible or obscure and remain unidentified (Kelleher and Leins 2007: 231-40) and there is a strong likelihood that some of these also derive from the huge variety of types minted in eleventh-twelfth century France.

[92] They were reckoned equal in value to the English Short Cross coins in 1180-1247 (Rigold 1949-51: 39).

century) and notably all cut halves, and a second from the thirteenth century under Philip of Heinsburg under whose tenure Cologne minting took off again after a period of stagnation. These episcopal and imperial issues almost all come from London and this suggests that they infiltrated English currency via the capital and were then dispersed further afield only in exceptional circumstances. Map 6.5 plots the distribution of the German coins. In PI-II there is a strong geographical bias towards the south east and this is particularly focused on London (although seven of the eight City finds come from the Vintry site). Two finds also come from Thetford, with singles from Shepperton (London), South Croydon (Surrey), Old Sarum (Wilts.) St Nicholas-at-Wade (Kent) and Blandford Forum (Dorset). The PIV Cologne pfennigs extend their range into Worcestershire, with the other two being centred on the south-east at London and Canterbury.

This distribution points to links between German sources and the capital. A London-based guildhall for the merchants of Cologne, known as the 'Steelyard', allowed German merchants to enjoy additional privileges (Milne 2003: 61) and similar institutions could be found in Ipswich, Great Yarmouth, King's Lynn, Boston, Hull, York, Newcastle and Edinburgh. Taken together, the steelyards created an integrated trading network that served to link merchants of the Hanse. Pitch, tar and timber appear to have been their main imports (Friel 1994: 66-7). In terms of the issue dates within PI-IV, a gap is visible between coins circulating up to *c*.1100 and the three coins struck after 1167 and into PV. This is indirect evidence of the decline and recovery of silver supplies in this period but moreover reveals the route and reason for this material being present in southern England and London in particular.

6.2.4. Scandinavia

Seventeen PI Scandinavian finds are present in the sample, 15 Danish and two Norwegian, none of which were recorded through the PAS (Figure 6.5). Their similarity to the English coins has been suggested as a reason for their acceptance (Cook 1999a: 237). Monetary links between Anglo-Saxon England and Scandinavia were most famously exemplified in

the large Danegeld payments which were made in silver pennies (Metcalf 2006: 362).[93] Using finds, Archibald has argued that by the end of the eleventh century this one-way flow of silver had been stemmed (Archibald 1991a).

All the extant Scandinavian coins are whole pennies with the coins of Denmark dominating and increasing in number through the reigns of Magnus the Good (1024-1047) to Olav Kyrre (1067-1093). Just two Norwegian coins, of Harald Hardrada (1047-66), are known. The distribution of these finds (Map 6.6) includes Norfolk, Suffolk (3)[94], Northamptonshire, Lincoln (4), South Yorkshire, London (4 plus two from the Walbrook hoard) and the Salisbury area (2). The Scandinavian material fits broadly into the distribution of English PI coins, with none being found north of the Humber, although the 'near Doncaster' example extends the range of PI finds to the north and west. Otherwise the focus tends to be eastern and emphasises Saxo-Norman centres in which imported material would not be out of place. Coins from Lincoln, London and Thetford and the two from Salisbury and Salisbury Plain bear this out. Other finds are recorded from Raunds, Doncaster and Mildenhall with the Olaf Kyrre penny from Wimbotsham the only example from a minor settlement. Hoarding is limited to one certain hoard from London. Taken alone this group represents little more than 'background noise' among the distribution of English coins and represents the last material remnant of formerly strong Scandinavia monetary links which ceased with the removal of the Anglo-Saxon aristocracy.[95]

6.2.5 Spain and the Islamic world

Gold coins were not a permanent feature of the currency in England until the fourteenth century although earlier examples had been struck in exceptional circumstances (Blunt and Dolley 1968: 157; Blackburn 2007: 65-7). In the eleventh and twelfth centuries there is however, ample documentary evidence to suggest that coins from the Islamic and Byzantine worlds functioned in England in certain contexts. All the more surprising then

[93] Many thousands of which are known as hoards and single finds in Scandinavia.
[94] The Mildenhall area coin has been made into a pendant and is more fully dealt with in Chapter 7.
[95] A small group of Scandinavian coins imitating the English sterling pennies appears in PVII but are a minor part of the phase of imitation centred on the Low Countries in the late thirteenth and early fourteenth centuries.

that gold coins from North Africa and Spain are so seldom found as British finds. Just eight examples are known, three of which were recorded through the PAS and via the Treasure Act which span a range of years from the mid-eleventh to late-twelfth centuries (Figure 6.6). Islamic gold coins are rare finds in Western Europe, Duplessy's survey of twelfth-thirteenth century finds cites just twelve examples: seven from western France, two from the Low Countries, one from Germany together with an English find of two Almoravid dinars at St. Paul's, London (Duplessy 1956: 130).

These finds, and particularly the PAS contribution, are important as they represent one of those rare events in which new finds lend support to original observations by Grierson (1951; 1974), Carpenter (1986; 1987) and Cook (1999a; 1999b). Over half a century ago Grierson set out a convincing argument as to the identity of a gold coin which makes occasional appearances in the English records, the earliest of which is in the Pipe Roll for 2 Richard I (1190) recording that the sheriff of Kent had paid the sum of 200 marks for 20 marks of gold *in obol' de Muscze* on the king's behalf (Grierson 1951: 75). Grierson surmised that the *'oboli de Musc'* (usually valued at 1*s*. 4*d.* and weighing 2.3g) can only be the Almohad dinar, a coin that was struck at a number of mints across Spain and North Africa (Grierson 1951: 79-80)[96]. 104 *oboli* make one mark of gold in the records of the Exchequer (23.08/23.38 carats) thereby signifying a coin of almost pure gold (Carpenter 1987: 109).

Thus far the majority of the Islamic coins have been recovered in the south-east of England (Map 6.7). These coins are likely to have entered via London and then dispersed within a limited range, although the York find-spot suggests that other major urban centres could also attract high value foreign coins, probably through the merchant classes. The Wattisham (Suffolk) find (Figure 6.7) is an Almohad gold half dinar of Abu Ya'qub Yusuf I (AH 558-80/AD 1163-84). The mint is not given on the coin but it was struck AH 563-80/AD 1168-84. Both obverse and reverse consist of a double square inscribed with the declaration of faith and the ruler. The coin is underweight at 2.01g but is crumpled

[96] Carpenter gives the source of 'Musc', sometimes rendered 'Murc' as Murcia (Carpenter 1987: 108).

and incomplete with some circumferential loss. The date of striking in the later twelfth century would put it in the half-century before Henry III's accumulation of gold, but it would also have needed time to travel from its origin to England and then to have been lost. Wattisham lies between Ipswich and Bury St Edmunds, where it is recorded that Henry III made offerings of 12 obols of *musc'* on festival days. However, this coin is toward the end of a sequence of eight earlier examples and trying to attribute all gold coin finds of this kind to Henry III's treasure ignores other evidence for their use. Indeed Archibald dates the start of importation of gold coins from the Iberian Peninsula to before 1100 (Archibald 2009). Evidence for links which might explain gold coins from Muslim Spain in England has been explored in the literature – particularly the role of the king. The 1167 and 1171 Pipe Rolls both refer to purchases of Spanish cloth, silks and other luxury fabrics (Nightingale 1985: 127-8), but the coin might also have travelled with pilgrims or through trade. The discovery of a hoard of Anglo-Saxon pennies (dated 987-8) at a hostel on the Roncesvalles Pass is probably evidence of English pilgrims visiting Santiago de Compostela (Mateu y Llopis and Dolley 1952-4: 89-90; Nightingale 1985: 129). Nightingale suggests that by the twelfth century many English were going by sea to the Galician coast and that it was in fact Christians in Spain who were exporting the gold coins. Edrîsî the Muslim geographer called the Bay of Biscay 'the sea of the English merchants' (Nightingale 1985: 129).

This rare find and the plentiful historical evidence suggests that gold coinage had a specific 'other' function to silver in the twelfth century. Their use was restricted by the wealth of the owner and the contexts in which they were used; namely high-level international transactions and the great treasures of kings. Form seems to have outweighed faith as the Islamic inscription was no barrier to their accumulation and the low incidence of finds shows that their theatres of use were different to those in which silver coins performed.

6.2.6 Byzantium

Ten Byzantine coins are in the dataset (Figure 6.8) all bar one are copper. The single gold coin comes from the parish of Abbess, Beauchamp and Berners Roding in Essex. This gold

hyperpyron of Andronikos II and Michael IX (1294-1320) was struck at Constantinople (Figure 6.9).[97] The obverse shows a half-figure of the Virgin orans within the walls of Constantinople, on the reverse are the figures of Andronikos II and Michael IX and between them a standing figure of Christ holding his hands in benediction on their heads. The coin weighs 3.98g which is at the upper end of the usual weight range proposed by Grierson (1999: 128) who also attributes the irregular shape of the coin to the cutting of the flans with shears in the mint before or after striking. It is extremely rare to find Byzantine gold in England. As precious bullion, gold could clearly travel further than either silver or base metal coins, given that it was both the metal most highly valued in north-western Europe and the currency used for ceremonial and large-scale payments. As we have seen above, debts, dues and payments were often accounted in foreign gold coins (although it doesn't necessarily follow that they were paid in such) and the bezant is one such case. The term *bezant* is an English form of the Latin *bizantus* which was used to describe Byzantine gold coins, and for which there is ample documentary evidence in England in the twelfth and thirteenth centuries (Cook 1999b) as well as in Italy and France in the thirteenth century (Blackburn 2007: 60). It is salient to note that despite this recorded usage, no coins have come to light in any western European country (Baker 2002: 141-5).

This find post-dates the period in which Byzantine and Islamic gold found use as a money of account and, as is argued by Cook (1999b), as a physical coin circulating in certain contexts. In sources of the twelfth and thirteenth centuries gold coins from Byzantium are a fairly common feature. Prior to the thirteenth century the bezant (valued at 2*s*.) was used as a term of reckoning, rather than as indicating the actual coin to be used in any payment (Grierson 1951: 76-7), or otherwise used as non-commercial, prestigious alms-giving objects (Grierson 1974: 387; Spufford 1988: 183). In challenging these views, Cook asserts that bezants were available in significant numbers from the mid-late twelfth century although as yet no modern finds of the period have been made to confirm his view. A find of coins from London in *c*.1196 is the only hoard evidence recorded (1999:

[97] Catalogue class 2(b) (n) with Γ Θ (Bendall 1988: 129).

256-60). Further evidence for their circulation comes from documentary sources. The Accounts of the King's Wardrobe in the Pipe Rolls and entries in the Fine Rolls give clear evidence for the amassing of two great gold treasures by Henry III; one in the 1240s for his proposed crusade to the Holy Land and, when this had been spent on the Gascon expedition of 1253-4; a second, in the 1250s, which was intended for an expedition to Sicily to install his son Edmund at the expense of the Hohenstaufen rulers (Carpenter 1986: 61-2). In the event this gold was used in the unsuccessful issue of Henry's own gold coins (Chapter 4). Receipt records for both treasures include a significant number of bezants and oboli de Musc as well as Sicilian gold Augustales of Frederick II (Carpenter 1986: 63; 1987: 109). The *Dialogus de Scaccario* gives instruction on how Exchequer officials were to account for and receive gold (Cook 1999b: 257) lending further weight to the accumulating evidence of their presence in England. The Pipe and Fine Rolls contain entries which show that payments in gold came from Jews, ecclesiastics, towns and laymen with bezants being more prolific than oboli (Carpenter 1986: 68; Cook 1999b: 261-2). Metal detecting and excavation have, however, failed to produce any of the bezants which we must have circulated in England in the twelfth and thirteenth centuries.

Hyperpyra minted after the reign of John III Vatatzes (1222-54), like this example, were of a lower standard than the 22½ carats maintained previously, and by 1282 they became further debased (Spufford 1988: 168; Grierson 1991: 110). The chronology of this find is curious, coming as it does from the later period when Florentine florins and French ecus had taken over as the imported gold coin used in England. The import of Byzantine material culture, beyond high status goods is rare, even of ceramics. Dark's catalogue of pottery types does not include any wares distributed as far as Britain although some material did reach Spain and Italy (Dark 2001: 125).

This late find may be an insignificant anomaly being 100 years after the recorded presence of bezants in England. However, it could equally extend this chronology and fits into a broader range of recent which adds to the idea of a Byzantine presence in England from PI-VII, but with particular focus on PI (Map 6.8). Copper coins recorded thus far centre on

London with outliers in Essex and Norfolk. The London finds all derive from the metal detecting of spoil generated from the sites at Billingsgate, Vintry, Bull Wharf and Thames Exchange. Although not all were recovered under excavation conditions these coins were among finds unlikely to have suffered from contamination by later intrusive material. The Byzantine Empire, like much of the eastern Mediterranean, enjoyed a coinage structured differently from that in northern Europe in that gold and copper coins dominated over silver. Silver coins were abandoned entirely by Alexius I's coinage reform in 1092 and only reinstated in 1304 (Grierson 1991: 64; Spufford 1988: 97, 146). Between the eleventh and thirteenth centuries, therefore, only gold and copper coins would have been available to enter England, and given the monometallic nature of the the currencies of north-west Europe, gold was the likelier to have found a natural use because of its intrinsic bullion value. Despite this, nine mostly eleventh-twelfth century copper coins are known.

British finds of Byzantine coins of all periods have been viewed with a degree of scepticism in the past thanks to George Boon's review of a group from Exeter (1991: 38-41). Although sound in his evaluation of the Exeter finds the stigma attached to Byzantine copper by Boon has perpetuated, and often led to the dismissal of subsequent material as recent losses. Using PAS finds of fifth-seventh century Byzantine coins and other eastern Mediterranean goods from Turkey, the Levant and North Africa, Moorhead (2009, see map 6.9) has established a basis upon which one can interpret some Byzantine coins as authentic ancient losses.[98] For the post-Conquest period stronger evidence comes from London where three Byzantine coins and a seal found at Bull Wharf indicate a flurry of activity in the late eleventh century (Egan 2007: 111-4). This is supported by two coins from the Vintry and single finds from the Thames Exchange site, Mistley (Essex) and Kelling (Norfolk) along with eight seals from other sites within the city and (Kelleher & Leins 2007: 195; *Coin Reg* 67, no. 161; Curtis 1989: 116; Egan 2007: 112-4).[99]

[98] A small group of Byzantine material consisting of seventh-tenth century coins, seals and an intaglio excavated at Winchester has added to the corpus of finds (Biddle 2012: 666ff).

[99] A silver miliaresion of Romanus III (1028-34) converted into a pendant found at Ware (Herts.) is covered more fully in Chapter 7 as in its converted state it its use-life differs from the other coins. The likelihood is that it came to England from Scandinavia already converted into a piece of jewellery.

The copper coins remain a curious type of coin to find in England at this period given that only silver pennies were struck and used. How they functioned is uncertain, there are few documentary references to coinage of the eleventh-twelfth centuries and none at all relating to copper coins functioning alongside the silver penny. If Boon's argument that Byzantine copper coins are recent losses is correct then we would not see chronological variations in distribution but a standard pattern over the country. Comparison of recent finds from the sixth-seventh century with the eleventh-twelfth century material shows two entirely different distributions, the earlier on the south-west coast, the later centred on London and East Anglia (Map 6.9).

The small sample tightly focussed on London is indicative of interaction between the capital and Byzantium (Egan 2007). The Essex and Norfolk coins are the PAS contributions and they do not fit so snugly with the London-centric distribution. Whether these coins should be considered to be modern losses is uncertain as the rural findspots do not lend themselves to direct contact with Byzantine spheres of activity. It seems possible that pieces like this arrived in the baggage or purses of travellers who had visited regions under Byzantine influence. The twelfth century material is that which would have been encountered by Crusaders travelling via Byzantium and perhaps they came to England via that route. Earlier evidence comes from a miliaresion of John II Tzimisces (969-76) from Caister-on-Sea, Norfolk, an anonymous follis (*c.*969-1092) from Greater Manchester and a Class C follis of Michael IV (1034-41) recorded at the Liverpool Museum without any known findspot. A group of nine coins listed by Thompson as a London hoard (1956: 91, no. 253) are a strange group. All are bronze but have a wide date range, from Justin II and Sophia (565-78) to Andronicus II Palaeologus (1282-1328). This author would argue against their being a hoarded group, but what their nature truly is must remain open to debate.

England's currency was silver and as such a level of control was exerted over silver imports which would have been exchanged at the mint for English coin. No such system was in place to account for gold or base-metal so coins of these metals operated in a different

manner. We have already seen with the Islamic find above that gold operated outside of general currency and was the preserve of wealthy members of society. The copper coins found as metal-detector finds add to the small but growing corpus of coins and other Byzantine objects linking England to the Empire and forces a reappraisal of the authenticity of formerly disregarded pieces.

6.2.7 Minor contributors[100]

A small number of coins from various sources are grouped together in Figure 6.10 as a minor addendum to the catalogue of early foreign imports. The imperial coin of Lucca is interesting as this type is known to have circulated in the Crusader states up to 1180 and along with those of Valence are the most commonly found coins on sites in the Holy Land. These coins have been termed 'preferred currencies' and were argued to have formed the majority of western silver bullion in the Latin East (Metcalf 1995: 14-16). The copper coins from southern Italy are a pierced issue of Robert Guiscard found at St Augustine's Abbey in Canterbury, probably worn as a pendant and perhaps left as an offering, similarly the Sicilian coin can be tentatively linked to the routes of the members of the First Crusade.

6.2.8 Summary and interpretation

Imported coins in PI-IV are limited in number and relate to different aspects of the research questions posed in Chapter 1. The assembled data comes from a wide geographical range of sources – from Scandinavia to North Africa, and Scotland to Byzantium – in fluctuating numbers. The earliest are small numbers of Scandinavian silver pennies, Byzantine coppers in towns, and a larger number of French (feudal) coins which are most numerous in PI and PII and absent by PIV. A similar picture can be seen with the German coins. Scottish coins became significant by PIV. A large proportion of the finds are linked to London and other major centres. The links with pilgrimage and crusading cannot be ruled out.

[100] Many of the 25 petit deniers in the corpus were struck in PIV, however these will be covered in the following section as the evidence points to the group circulating in the Short Cross phase.

Political realignment resulting from the Conquest moved contact from Scandinavia (only up to second half eleventh century) to France. However in the pre-Conquest period Anglo-Norman contact is seen in coin finds from Normandy (Southampton hoard *c.*1030). This is greatly exacerbated after the Conquest. Landowners holding lands on both sides of the Channel account for some of the finds, for example at Faccombe (Fairbrother 1990 436-46). Assemblages from London and Winchester comprise copper coins and seals and point to political rather than economic contact (Egan 2007, Biddle 2012). Coins from Southern Italy and Byzantium may be linked with Crusaders, particularly the pierced follaro from St Augustine's Abbey, Canterbury (Sherlock & Woods 1988)

Some coins seem to have found use as substitutes for English coins, such as the Scottish and German examples. Some of these coins may be purposely cut to disguise their 'otherness'. Clearly the Islamic gold coin has a clear function historically for high-level transactions. The Byzantine gold coin is too late to be part of this tradition and remains anomalous, although its gold fabric makes it a significant find. Gold coins indicate a loss of a different nature to a coin of lesser value – it represents a store of wealth or offering.

There were well-established routes for Continental trade and contact through which this material could enter England, for example the German trade network in major towns; the cross-channel landholdings established and the English merchants active in Spain bringing Islamic gold back to England.

6.3 Periods V and VI (1180-1279)

The growth in coin production seen in England in the twelfth-thirteenth century provides a much larger sample of foreign coins with which to work. From 1195 Scottish production increased and the beginnings of centralised minting in Ireland under John was underway by *c.*1185. This period also witnessed the striking of the first continental coins which directly imitated the English Short and Long Cross pennies, principally in Westphalia and later in the Rhineland (Rigold 1949; Stewartby 1995). Continental merchants were beginning to use Short Cross pennies as a preferred currency due to their comparatively

good silver content and weight (Cook 1999a: 242) and hoard evidence points to a widespread circulation; there are now 85 published continental hoards that include Short Cross coins - from France (34) the Low Countries (4), Germany (24), Scandinavia (6), Italy (3), the Balkans (5), Greece (6), Turkey (1) and the Near East (2) (Allen 2001: 121-5).

In PV and VI the main sources of foreign coins are Scotland, Ireland, Germany, the Low Countries and France (Figure 6.11). These imports are overwhelmingly dominated by Scotland and Ireland. Hoard evidence from England and Wales shows that non-English coins continued to play a small but significant role from about 1210. Figure 6.12 shows the frequency of foreign coins in hoards. English coins form the bulk of all PV hoards, but Scottish, Irish, and to a lesser extent continental coins played minor roles in the circulating medium, increasingly after 1200. In PVI foreign coins imitating the Long Cross type were being hoarded by 1260.[101] In both periods the majority of foreign coins were types based on the English penny.

6.3.1 Scotland

Period V

William the Lion's Crescent and Pellet coinage was replaced by the Short Cross and Stars issue in 1195 and incorporated the reverse design of the English Short Cross coinage of 1180-1247, but included stars in place of quatrefoils in the angles (Figure 6.13). Production was at Edinburgh, Perth and Roxburgh. PV was an important phase in the development of the Scottish coinage which saw its coins enter currency in significant numbers beyond its borders. Eighteen hoards (28.6%) include Short Cross and Stars pennies of William the Lion or Alexander II (Figure 6.14). None predate the 1205 recoinage so we may place the main period of importation after this date. The majority of hoards average out at about 5-7% Scottish coins, while in the two largest, Eccles and Colchester, it is much lower at 1.5%. Large hoards often under-represent foreign or underweight coins. One could argue that an individual able to amass the £25 18*s.* 11*d.* in the Eccles hoard would have been in a position to access coins from a range of sources and select the best

[101] The Welwyn Garden City (Herts.) hoard contained two Scottish among its 46 coins (Archibald and Cook 2001: no. 18).

pieces. In other hoards of over 100 coins, where the full content is known more modest numbers of Scottish specimens are present; Fillongley has three from 115 (2.6%) and Leconfield nine from 475 (1.89%). In general smaller hoards seem to discriminate less against non-English content and are much more in line with the Scottish coins in the PAS data (6.07%).

Single find numbers increase during this period with 211 recorded from a host of sites in England (179 derive from the PAS). In tandem with the finds comes useful documentary evidence which sheds some light on the official response to the unwelcome infiltration of foreign coins (Cook 1999a: 250-255).

Figure 6.15 displays the comparative denominational spread of PV coins. There is a clear difference in the composition of the two sources in which English pennies (50%) outnumber the cut-halfpennies (40%) with cut-farthings at just 10%; while in the Scottish series the largest proportion are the cut-halfpennies (63%), followed by pennies (24%) and a similar proportion of cut-farthings as seen in the English dataset. This halfpenny bias is not particular to finds made in England as finds from Scotland are similarly biased (65.22% cut-halfpennies). A suggestion offered in explanation is that large numbers of Scottish coins were cut at the mint prior to issue (Holmes 2004: 244). The value of the English coins is £7 18s. 4½d. while the Scottish is 5*s. 2½d.* (6.06%). This figure is almost identical to the 6.07% seen in the overall figures seen in many hoards and among the single find totals.

Map 6.10 plots the Scottish PV hoards and single finds. The hoards show a predictable northern bias with a north western group consisting from Natland and Arnside (both Cumbria); Barnoldswick, Clifton, Tockholes and Eccles (Lancashire) and Wrexham). A north eastern group of hoards comes from York Minster, Leconfield (Yorks.), Hickleton (Doncaster), Claxby (Lincs.) and Elton (Notts.). The Fillongley (Warks.) hoard is the only Midlands find. The south eastern hoards are from Colchester (Essex), Seasalter and Teston (both Kent) while in the south west Wellow (Soms.) and Stockland (Devon) extend the range.

The single finds provide an interesting corrective to the hoard evidence and permit examination of activity in the wider landscape. The overall distribution shows finds scattered over a broad sweep of the country with particular groupings in the Avon Valley and West Midlands, in Hampshire and along the south coast, in Hertfordshire and Bedfordshire, in Suffolk (particularly at Westley, Dunwich and Covehithe) and Norfolk and a thinner scattering over Lincolnshire, Nottinghamshire and North and East Yorkshire (particularly Appleby and South Ferriby). Elsewhere small clusters appear in Durham, Shropshire and New Romney. The sites at Meols (Wirral) and Llanfaes (Anglesey) yielded five and 11 Scottish PV coins respectively.

Reflecting on the differences between hoard and single find patterns, the limited numbers of Scottish coins as single finds in the far north is curious. The six hoards from Cumbria and Lancashire find no parallels at all in the single finds record. However, the combination of these hoards with the finds from the sites at Llanfaes and Meols begins to suggest that the Scottish coins were perhaps providing a larger proportion of the circulating medium in this region than elsewhere. Comparing this data with the English Short Cross distribution in the Cheshire/Lancashire/North Wales area does show a disproportionate number of Scottish to English coins suggestive of a circulating pool with disproportionate numbers of Scottish against English coins.

Period VI

The English Long Cross recoinage took place in 1247. By 1250 Scottish coins of Alexander III were being minted to a similar reverse design, but maintained the profile bust of earlier issues. Along with Irish and Continental coins, Scottish Long Cross pennies were being hoarded within 10 years of the issue and they are present in 43.47% of the hoard sample (Figure 6.16). The percentage range of Scottish coins in hoards is wider than that seen in PV from a low of 0.52% in the Baschurch hoard to 14.81% in the Palmer's Green find. However, if one ignores the high and low figures the rest all sit comfortably within a 2.07-4.76% range. In most of these hoards the content is similar, despite any difference in size.

There are 2,387 English coins of PVI and 121 Scottish among the single finds (4.82%). The denominational profiles in PVI match more closely than in PV (Figure 6.17). Halfpennies are the dominant coin in both cases at 45% of the total; pennies are the next largest group providing 37% of the English and 44% of the Scottish. Farthings are 17% and 19% respectively – the same level as PV.

Hoard evidence from the north is almost entirely absent, with only Newcastleton and Kirklees north of the Wirral; hoards are also absent from the south-west (Map 6.11). Hoards containing Scottish coins are mostly limited to the south-east, indeed only three hoards are not within this area and these only include small numbers of coins. Taking this evidence alone would immediately suggest a south-eastern bias in the circulation of Scottish coins but in fact the single find evidence is much more widespread. Here the densest focus is on East Anglia and the East Midlands with an almost linear band of finds running from Lincolnshire up to the north-east of England. The southern and home counties have very few findspots whereas in the West Midlands there are pockets of finds. Just one find comes from the North West.

6.3.2 Ireland

In PV and VI the Irish coinage – minted under the English crown –followed the English standard but was limited to sporadic periods of production. The coins fall into two phases, following first the Short Cross coinage and then the Long Cross. The first phase of Irish minting was undertaken when Prince John received the lordship of Ireland from his father Henry II in 1172, a small issue of coins followed which have been attributed to Dublin *c.*1185. A more significant series of coins was struck between *c.*1190-99 and carry John's title IOHANNES DOMIN YBER around a facing bust with a voided short cross and annulets on the reverse. These were struck at a network of mints at Dublin and Waterford, and to a lesser extent, Limerick, Kilkenny, Carrickfergus and Downpatrick.[102]

Period V

[102] An issue of coins of John de Courcy, Lord of Ulster was struck in the north of Ireland c.1185-c.1205. None of these are known in the single finds corpus.

From the inception of the new issue John had ordered that the coins be produced to the English standard of weight and fineness (22½ grains and 0.925 silver). In 1210 he decreed that they should be current in England *and* Ireland, and be received into the royal treasury without distinction. Cook argues that this was the crucial factor in them being widely accepted as currency (Cook 1999a: 242); Irish coins only feature in Short Cross hoards after the decree legitimising their use in England. The earliest recorded as containing Irish coins is the Stockland find which was buried *c.*1210-20. Figure 6.18 lists the Short Cross hoards known to contain Irish coins.

After the appearance of the first Irish coins in hoards in *c.*1210-20 ten of the 23 subsequent hoards contain Irish issues and, where the exact numbers are known, the Irish element falls between 1.39-26.67% of the total.[103] Turning now to the PAS data, the proportion of Irish coins when compared against contemporary Short Cross pence (i.e. those identified as being of classes 5c-8b) is 23 to 519 (4.43%) though the actual figure is likely to be lower.[104] Thirty-four single finds of Irish coins are present in the corpus, 24 being PAS finds, one excavated, while the detected sites at Meols and Llanfaes produced six and three respectively. The rare early coinage is represented by a halfpenny from Hayle (Cornwall) and two from Llanfaes (Anglesey), while the remainder are all of the third coinage (*c.*1207-11). The dominant denomination among the Irish coins is the penny (27), at over 75% of the total and *c.*25% greater than the English equivalent (Figure 6.19). The cut halfpenny and farthing were likely to have been sheared in England because the need for cutting was obviated in Ireland by the production of round fractions (largely unheard of in England until 1279),[105] though the lack of an obvious guide-line for shearing on the Irish coins may also have affected the selection of coins for cutting. The presence of round halfpennies suggests some level of use, but whether these predate the abortive

[103] The high figure is anomalous and from a hoard of just 15 coins, the next highest percentage in 6.67%, again from a hoard of 15 coins.
[104] Two reasons present themselves; i) there are a further 1,114 Short Cross coins on the database which have not been identified further, no doubt a large proportion of these are contemporaries of the Irish coins, and ii) Short Cross coins of classes 1-5b did not simply disappear on the eve of the Irish coins appearance, many will have also been lost within this later phase and would have thus diluted the Irish part further.
[105] Some Short Cross halfpennies and farthings are known but these are exceptionally rare.

introduction of the English fractional coins or were contemporary with them is not known; three of the five were struck during the second coinage (1190-9).

Map 6.12 shows that the hoard evidence focuses primarily on the Midlands and the north, with two in East Anglia and one in Devon. The large Colchester and Eccles hoards include significant numbers of Irish coins. The single finds pattern tells a different story in as far as the majority of finds lie in the south-east and East Anglia; other finds are found in the north Midlands, with the coastal sites of Llanfaes and Meols also contributing to the corpus. This pattern is broadly similar to that for Scottish coins (see above).

Period VI

The second phase of minting in Ireland came under Henry III. Under the authority of the King's brother Richard of Cornwall, Roger de Haverhull was put in charge of the Irish mint at Dublin which operated 1251-54. It has been suggested that 1254 marked the successful recoinage of most of the old coins of John (Dykes 1963). The coins themselves carried an obverse in the mode of John's earlier coins, a facing bust within a triangle but with a reverse imitating the English Long Cross pennies which had appeared in England in 1247. The voided cross extended to the edge of the coin, a feature that was intended to discourage clipping which had been problematic in the Short Cross coinage. Pennies were struck by two Dublin moneyers, RICARD and DAVI.[106]

The English hoard evidence is compelling; 10 of the 23 hoards of the period contain Irish coins (Figure 6.20). As in PV there is a small, but clearly visible Irish element among the English currency, with the level consistent at around 2% in hoards, a similar proportion to the 2-3% suggested by Cook (1999a: 244). As the Long Cross coinage is effectively a single entity with the Irish output starting four years after the English, it is possible to compare between the PAS finds of both types to establish how the currency may have been composed. There are 59 Irish Long Cross compared to the 2,378 English providing a

[106] It has been plausibly suggested that these men were the London moneyers Richard Bonaventure and David of Enfield operating the mint franchise *in absentia*. The dies certainly came from London (Spink 2003: 123).

percentage of 2.42%, just a little over what the hoards suggest. On that basis it seems reasonable to argue that Irish coins were a regular element of the currency providing just over two in every hundred coins in circulation. There was probably only minimal reluctance to hoard such coins amongst the more familiar English pence. Henry III's Irish coinage did not include halfpennies and farthings as had been seen previously and the English practise of cutting pennies to provide smaller denominations was applied to the pennies. This is reflected in the similarity between the two groups (Figure 6.21) and leads to the conclusion that the coins were being used in the same way. Certainly at a national level there appears to have been no preferential use of cut coins from Ireland.

Map 6.13 shows that a cluster of hoards and coins in East Anglia and the South East of England; Llanfaes and Meols, however, do suggest a wider use than that revealed by the PAS. North, East Anglia and the SW have very few finds. It is no surprise to see more Irish coins in those areas that record the greatest overall quantities of finds, however there are trends to be teased out of this data. Most curious in the distribution is the absence of coins in the west of England, geographically closer to the source. It has been said that a large proportion of the Irish coinage was exported to England and the continent – a conclusion based on the evidence of 1600 Irish coins in the huge Brussels hoard (Spink 2003: 124).[107] The direction of export, however, is difficult to gauge as the obvious entry point - Bristol - seems unlikely given the blank zone recorded on Map 6.13 across Gloucestershire and up into Worcestershire. The Wiltshire finds may have come via Bristol, and perhaps a south-coast entry point such as Southampton is more likely considering the linear distribution arc shown by the finds in that region.

6.3.3 Germany. Imitations of Short and Long Cross pennies

Continental coinage that imitated English pennies is a topic which has attracted some scholarly attention (Rigold 1949; Stewart 1995; Mayhew 1983). From the early thirteenth century Short Cross coins were being copied by mints in Westphalia where the growing reputation of the English sterling coinage, compared with the often debased and non-

[107] Some coins from Saxony copy the triangular obverse of these coins and infer a level of familiarity.

standardised coinages of north-western Europe, had begun to be appreciated. Sterling had become a coinage of trade and a preferred coin in mercantile transactions. Most imitations date from the period after John's 1205 recoinage and either copy the English style faithfully or include alternative legends or imagery (Stewartby 2001: 70). They fall into groups which either incorporate the reverse design but use alternative legends and/or obverses – such as the Emperors Otto IV and Frederick II or the bishops of Osnabruck and Munster, or else attempted to copy the English coins fraudulently; these latter have been classified by Stewartby (1995).

The first continental imitations appear in the Fillongley hoard (Figure 6.22) and, where present at all, hoarded coins tend to be modest in number (<2%). Fully imitative coins are probably present in the small hoards because the owners were unaware of their provenance, while the larger hoards tend to include those coins with Short Cross reverses but alternative legends and portraiture, perhaps indicating a more careful and selective approach to their accumulation. Interestingly, continental imitations feature with less frequency as single finds than they do in hoards and this is probably because there were only limited numbers of coins entering the currency in the early thirteenth century and the finds record is probably biased by the misidentification of imitative coins as official ones.

The Long Cross imitations listed in Figure 6.23 account for less than half a percent in the majority of the hoards, with the two smallest hoards (both *c*.20 coins) having greater proportions. Map 6.14 shows the distribution of the small number of Short Cross imitations that are known as finds. They are spread thinly in Hampshire, Norfolk, Yorkshire and Durham, while the relevant hoards are limited to three from Lancashire and Yorkshire. The PVI finds have a distinctively different distribution, with the hoards in the counties north of London and the one single find in Surrey, although it is not yet possible to say if this is meaningful.

6.3.4 Petit deniers

From the 1140s into the thirteenth century the Low Countries saw the widespread adoption of small coins known today as *petit deniers*. There are both comital and municipal issues with a wide variation in design from many mints including Amiens, Bruges, Douai, Ghent and Ypres (Grierson 1991: 92). Their silver fineness was roughly equivalent to the English and Cologne coins while the weight of fine silver matched the French royal money (Mayhew 1988: 69). The English wool trade with Flanders and Brabant ensured a level of interaction between the currencies that saw the sterling pennies of England valued at four Flemish pennies. Cook suggests they were used in England as a farthing alternative and with a weight of 0.3-0.4g and good silver this would have been a fair valuation. Although not a feature of hoards, *petit deniers* do 'turn up quite commonly as single finds' in England (Cook 1999a: 246). The PAS material includes just two examples from Kent, set against 23 from other sources. One is of Tierry and Philip of Alsace and the other is a 'goblet' type, both are from Flanders. It was in the late twelfth century that the idea of round fractional coins began to be considered, first appearing in Ireland c.1185 with the halfpenny and farthing issues of John as Lord, the rare coins of John de Curcy, Lord of Ulster, and the more prolific third coinage fractions (*c.*1207-11). An English Short Cross issue of halfpennies and farthings is known from London (1222) but the survival of just a handful of halfpennies farthings suggests that this experiment was quickly abandoned (Allen 2012a: 351). Map 6.15 shows that the distribution of the *petit deniers* focuses primarily on London, Winchester and the Kentish and East Anglian coastal areas, although some penetrate into the West Midlands, Lincolnshire and Yorkshire. A single find from Crail in Fife (CR 78.357) reveals the geographical range of these finds. The lack of PAS examples is odd and may indicate some level of discrimination in what finders are submitting for recording.

6.3.5 France

Under Philip II (1180-1223) a resurgent French monarchy reasserted control over the currency in its territories and the royal coinage thrived as the Crown's income doubled (Mayhew 1988: 68). This is visible through coinage in the absence of feudal issues – all

recorded issues here being in the name of the king. French coins played only a minor role in hoard composition in the Short Cross period and none at all in the Long Cross. Three coins were in the large Eccles hoard, and a find composed of *c*.20 French deniers found at Harwich in the nineteenth century, is more likely to be the lost property of a newly arrived visitor in the port rather than a reflection of contemporary currency in circulation.[108] Three fragmentary deniers Tournois were excavated from separate cesspits in Southampton (Dolley 1975:321-2). Although the hoard record is limited, the Curia Regis Rolls do reveal French coins in use; in 1231 John Scotus is recorded as having stolen 4 livres 15 sou in money of Tours from some London merchants (Cook 1999a: 244). The fact that the money was taken from merchants hints at how the majority of these coins must have entered England. All but the Cowbridge coin listed in Figure 6.24 are deniers tournois, and their presence is explained by the fact of a fixed relationship to sterling of 4:1, thus they could have acted as the equivalents of farthings. The parisis (although it is a heavier coin) had no such easy correlation and thus as finds they are scarce. How far tournois were accepted is revealed by plotting the finds in Map 6.16. The finds are heavily focussed on London with Kent, East Anglia and Winchester but finds from the Midlands, South Wales, Devon, Lincolnshire and York show that tournois did perform as low-level currency in other part of England.

6.3.6 Minor contributors (Spain, Portugal, Sicily, Crusader States)

Small numbers of coins coming from Mediterranean sources have been recovered in England and Wales (Figure 6.25). These minor sources include the first finds from Spain and Portugal, which had hitherto been unknown,[109] and contact with the Mediterranean through coins from southern Italy and the Holy Land. The south Italian and Crusader coins in particular were base copper and unlikely to have found use as currency. Their status as keepsakes or accidental arrivals of no monetary function is most likely. The finds coincide with the first mention of Spanish coins in an exchange document of *c*.1250 which speaks

[108] This is the default approach to abnormal groups of coins such as the rouleau of Norman coins excavated in Southampton (Dolley 1975) and the Dover hoard (Dolley 1955a).
[109] This does not include coins minted by the Islamic rulers discussed above.

of *mylerenses* coming to the exchange for recoining (Cook 1999a: 246).[110] Anglo-Castilian relations were at their strongest at this period with both kingdoms keen to ensure political alliances. Alfonso VIII had married Henry II's daughter Eleanor, while Edward I's wife was Eleanor of Castile, Alfonso X's sister. In 1269 war broke out as Castile allied with France against England and Aragon (Lomax 1995: 14; Childs 1995a: 18). Spanish groups were resident in London and Southampton, while Spanish ships conducted trade with Sandwich, Exeter, Fowey, Bristol and Chichester, in addition the thousands of English pilgrims that visited Santiago via ships to La Coruña ensured continuing contact through individuals (Lomax 1995: 14; Childs 1995a: 17-20; 1995b).

Coins from the eastern Mediterranean are rare. Four are recorded (the two above and two later finds) from East Anglia and Lincolnshire and these come from the Christian states of Antioch, Tripoli, Cyprus and Rhodes. The Antiochene coin was struck in the twelfth century, when the Crusader states still maintained a relatively strong presence on the Levantine mainland. The Tripolitan coin comes from the thirteenth century, while the Cypriot and Rhodian issues are from the fourteenth century and may possibly be connected with the possessions of the Order of St John or the Hospitallers Like Byzantine and Islamic coinages, the native Syrian money encountered by the Frankish crusaders were chiefly of gold and copper, and to a large extent the invaders adapted to the local currency systems, with changes to the iconography and the addition of billon or base-silver deniers in the French feudal style. The easiest explanation for this interesting, if sparce, material is that it represented souvenir or keepsake material retained by travellers to the east, whether pilgrims, crusaders or members of the military orders.

6.4 Period VII (1279-1351)

Chapter 2 outlined the significant changes to coinage in England resulting from the 1279 reforms. This change was to have wider consequences, particularly in Scotland, Ireland and the Low Countries and to a lesser extent in Germany, Spain and Italy. The English sterling coinage (1279-1351) was the largest mint output of the Middle Ages with pennies

[110] The identity of this denomination remains uncertain.

of Edward I remaining in circulation as late as the 1480s at least. PVII foreign coins are predominantly issues from Scotland, Ireland and the Low Countries (Figure 6.26). Scottish coins occur most frequently in hoards, followed by sterling imitations and Irish coins, while French coins occur twice. Although the range of foreign nations providing coins is fewer, the quantity of coins, proportionate to the English, is greater than that seen previously with PVII accounting for 36.95% of all the foreign coins in the sample. Figure 6.27 summarises hoards containing foreign coins.

6.4.1 Scotland

During this period Scottish coinage continued to take its lead from developments in England. Pennies of Alexander III with reverses that copied the new designs of Edward I's coins were in production within a year of Edward's first coins (Holmes and Stewartby 2010: 107) and are the most common surviving of the Scottish coins (Stewart 1967: 20). The obverse design maintained the Scottish profile bust, while the reverse adopted the new cross of the English pennies but with mullets in the angles rather than pellets (Figure 6.28). In another divergence from the English coins the legend excluded the mint name, and instead the mint signature was alluded to by the number of points on the mullets (Stewart 1967: 21).

Hoards deposited in PVII are more numerous than in any other period in England and hoards in Scotland are more prolific still, a result of the uncertainty caused by the Scottish Wars. Some early hoards have a limited use in a study of this type because they were unreliably recorded, however, fortunately, the majority have been studied since the establishment of modern classifications. Of the 101 hoards of PVII, 52 (51.49%) include Scottish coins, the majority being pennies with occasional smaller denominations. Figure 6.27 outlines the composition of hoards and demonstrates a clear pattern. Up to around 1300 Scottish coins provide *c*.8-12% of the hoard content, but from 1300-*c*.1315 this figure is nearer to 5% although a few hoards do contain a higher percentage. From around 1320 no hoard contains more than 5% and somewhere around 2% or less becomes common. This gradual diminishing can presumably be accounted for by Scottish mint

output. The bulk of Alexander III's coinage was produced in the years immediately after 1280, after which the next output was not until the reign of John Baliol. With no new coins being minted the hoards reflect a gradual shrinkage of Scottish coins in circulation. In terms of the overall numbers of foreign coins in hoards, the reduced Scottish input is supplemented by the arrival of Irish and Low Countries sterlings.

There are 192 PVII Scottish coins in the corpus (168 PAS). Although the design was continued by John Baliol and by Robert Bruce the output of these monarchs was much reduced and coins of Alexander would have provided the majority of the Scottish part of the currency as indicated in Figure 6.29. Throughout this period Scottish coins seem to have been accepted in England without opposition (Mayhew 1992: 131). The breakdown by denomination in Figure 6.30 shows a fairly uniform proportion of pennies from each source, while Scottish halfpennies make up the majority (10%) of the remainder. The English figure sees halfpennies and farthings contributing roughly equal quantities of smaller coins. In the English case these proportions represent the trend seen at the mints, in which penny production was favoured despite calls for a more generous provision of small coins for day-to-day use. The mint output figures have been corrected by showing that the penny dominated output in 1 Jan. 1280-18 May 1280, with £47,326 (90.2%) out of £52,491 (Allen 2004a: 39-40). This was somewhat evened out by production of the 'star-marked' coinage between 1335-43 which consisted solely of halfpennies and farthings (Appendix I. Challis 1992: 675-79). Similar figures for Scottish production are not available but the finds suggest a similar tendency for pennies and against farthings.

Map 6.18 shows that the distribution of Scottish single finds is fairly widespread. East Anglia and the southern counties are represented fairly well, as is a swathe of land running from the Severn valley into Lincolnshire, while a smattering of finds can be seen in the Cheshire plain and the Vale and Wolds of Yorkshire. This coverage largely matches the PVII English coins and, in the middle of the country, high levels of detecting. Given that no bias is visible near the Scottish border this suggests that the Scottish coins were an

integral (if small) part of the circulating medium in England and that they were lost in proportion to English coins.

6.4.2 Ireland

Irish coins of Edward I followed quickly after the reforms seen in England. The Irish issue had a reverse matching the English with a solid long cross and a legend abolishing the name of the moneyer and reading CIVITAS, followed by the name of one of the three mints, Dublin, Waterford or Cork. The obverse retained the triangular frame for the king's bust but this was now inverted, which seems to have allowed space for a better portrayal of the crown and hair. The reformed output of Ireland matched the English in incorporating a round halfpence and farthings (no new idea in Ireland in fact). Many Irish coins were, it seems, exported to the continent, as their distinctive design was imitated at Cologne, Bar and Lippe (Spink 2003: 125).

The issue in Ireland was struck from 1279-1302 and became a small but regular feature in hoards after *c*.1290 (see above). On average they contribute 0.5-2.5% in those hoards where they appear (41.58%) and they seem to have found acceptance through tradition, stemming from John's decree of 1210, in which he ordered that his new Irish coinage should be accepted in both England and Ireland (see Cook 1999a: 242, referencing Matthew Paris, *Chronica Majora*). There are 158 single PAS finds of Irish coins recorded for PVII (126 PAS). Denominationally, the Irish coinage differs from the English pattern (Figure 6.31). The majority are still pennies, but halfpennies and farthings are relatively more common, at 17% and 11% respectively.

The distribution shown in Map 6.19 shares some similarities with the Scottish picture. Coins from Ireland are found over much of the country and especially in Suffolk and Lincolnshire. The differences lie particularly in a wide band of finds in the counties north and west of London running down into Hampshire - something not observed in the Scottish distribution. Elsewhere, more Irish coins come from the Kentish and southern coasts as far as the Isle of Wight and there is a thin scattering in the south-west. Curiously,

there is nothing in this distribution to suggest that Irish coins arrived via the west coast of England, other perhaps than the coastal sites in north Wales, so again it seems possible that the finds were constituent parts of the whole currency, although it may be that there was some regional bias towards the south. The question remains whether the coinage which travelled from Ireland to the continent did so directly, or else travelled via England, although the latter might seem more likely.

6.4.3 Sterling imitations, mainly from the Low Countries

One particularly interesting group of imported coins is the imitation sterlings of pennies of Edward I and Edward II. A precedent had been set in the previous century in an earlier phase of imitation, first of Short Cross pennies in Westphalia and then of the Long Cross coinage, primarily focused on the Rhineland (Rigold 1949; Stewart 1995; North 1995 and see above), but neither of these precursors matched the thirteenth-fourteenth century production for scale. The main focus of minting was the Low Countries, in regions where English sterling had become a common trade coin. Nick Mayhew (1983) has most recently surveyed the hoard evidence and classified the sterling imitations. The PAS data now provides, for the first time, a body of material which can be combined with the hoard data to ask questions about the role of these imitative types. In Particular, is there any regional bias in the occurrence of these coins, or of particular issues?

Phase 1: Crockards and Pollards (c.1280-1299)

The first Low Countries coins imitating Edward I's new money were struck in the mid-late 1280s, but did not comprise a significant element in British hoards of the early 1290s (Mayhew 1983: 19-24). This first wave – known as crockards and pollards – was similar to the English coins, but where Edward I's bust wore a crown, these continental types either have a bare head (pollard) or a circlet of roses (crockard), as well as a legend indicating the authority and mint under which they were struck (Figure 6.32).

Henry III's government had been aware of the Westphalian imitations but the problem seems to have grown through the course of the 1290s as more unregulated foreign

coinage entered the country. The swiftness and scale of the 'incursion' was unlike any seen before (Cook 1999a: 251). In 1283 the first of a series of remedial measures was taken when John de Bourne was appointed with custody of the seaboard at Dover, Sandwich and neighbouring ports to confiscate foreign, clipped and counterfeit coins (Cook 1999a: 250; Allen 2012a: 355). Problems in English currency had been exacerbated by the export of good weight and fineness English coins, plate and jewels. Edward I's heavy expenditure abroad also probably led to a scarcity of money in England[111] and led non-English coins to become more acceptable. As we have seen, both Irish and Scottish coins made up a small but seemingly legal element of the currency at this time (Cook 1999a: 251), indeed their legality is expressed explicitly in the 1291 *Statutum de moneta parvum* which named Scottish and Irish coins alongside English as the only 'acceptable' currency (Allen forthcoming). The end of war with France and the coins brought back by returning troops as well as the resumption of the wool trade might all account for large quantities of imitative sterlings in circulation at the end of the 1290s (Mayhew 1983: 23). Neither was the Government unaware of this negative balance of exchange and in May 1299 the Statute of Stepney forbade the importation and use of foreign coins leading to a major recoinage (Kent 2005: 18). Estimates suggest at least £200,000 of crockards and pollards (48 million coins) were recoined at this time (Mayhew 1983: 24),[112] Allen estimates that between £300,000-£350,000 crockards and pollards were converted into £240,000 English pennies (Allen 2000: 43). At Christmas 1299 any surviving coins were to pass at a halfpenny, before they were demonetised the following Easter. From April 1300 pollards and crockards were demonitised in England, and continental mints ceased their production in favour of more closely imitative types (Kent 2005: 19), although in Hainaut this actually seems to have occurred before any measures were taken against them in England (Mayhew 1983: 25).

The coins included within the dataset as continental imitations follow Mayhew's definition (1983: 1), that is to say, those coins 'most clearly resembling the English Edwardian

[111] Between 1294-8 some £750,000 went on paying troops to defend Gascony and for political alliances against the French (Spufford 1988: 162).

[112] This dates the class 9 coins of Edward I to 1299. Temporary recoinage mints were opened at Bristol, Chester, Exeter, Hull, Newcastle and York to deal with the process.

sterling'. This definition omits coins such as those from Iberia and Italy but most, if not all, of the relevant PAS data falls is included and presented in Figure 6.33. In all, 285 coins are present in the dataset, of which 159 are PAS finds. The first phase is outlined below.

Crockards and pollards represent 47.02% of the imitative types with the most numerous being Hainaut issues of John of Avesnes, Brabantine types of John I and II, and those of Arnold of Looz and Gui of Dampierre. The remaining types are represented by 10 or fewer coins. The impact of the crockards and pollards in English currency has largely been established through plentiful documentary evidence, as this is not apparent in the hoards of the relevant period. It is the single finds that can provide supporting evidence in this area. The earliest English hoard to contain continental coins was from Broughton (Hants.) buried *c*.1290 which included sterlings of Gui of Dampierre, John of Avesnes and Renaud of Gelderland (North 1966: 124). We can be fairly sure that the majority of the crockards and pollards were removed from circulation by the partial recoinage of 1299.

In later hoards the continental imitations, where present, tend to be of the crowned bust types, although earlier types are occasionally present. The Gorefield (Cambs.) hoard deposited *c*.1312-14 included 25 crockards and pollards along with two later phase coins of John the Blind,[113] suggesting that some coins survived the 1299 cull,[114] but this would have been the case only in exceptional circumstances. Later hoards including older Edwardian pennies also sometimes included imitative types which presumably remained as a small part of the circulating pool. The Beaumont (Cumbria) hoard deposited 1364-70 included both pollards of Looz and Hainaut and the 1454-5 hoard from Reigate (Surrey) included one worn sterling of John the Blind (Mayhew 1983: 157, no 14; 172, no.98).

Map 6.20 shows that the distribution of crockards and pollards is most dense in East Anglia, particularly in the counties of Norfolk and Suffolk which account for 52 of the coins of this phase (37.68%). There are fewer coins in Essex and the counties north of London.

[113] These Luxemburg coins are thought to be the first hoarded examples from the second wave of continental imitations found in England (Cook forthcoming).
[114] The coins could equally have entered circulation from the Low Countries *after* 1299 where they had not been actively removed from the currency.

Kent and London finds are limited to a few sites with multiple finds, the excavations at Canterbury (3) and London (2) together with two single finds. The lack of rural finds in this area is surprising and may reflect the cut-off of supply after the confiscation of foreign coins at the major ports of London, Dover and Sandwich. The distribution picks up again along the south coast and further inland in a band roughly stretching from Lewes to Corfe (12) with some finds on the western half of the Isle of Wight (4). Just two coins came from the extreme western counties. In the west Midlands two groups of finds are visible, bands of seven coins in Worcestershire, Warwickshire and Leicestershire and again further north in Shropshire, Staffordshire and Cheshire. The sites of Meols (3) and Llanfaes (4) provide the most north-westerly evidence of single finds of crockards and pollards, which is otherwise invisible in the PAS finds distribution. On the east coast, Lincolnshire provides seven coins, the East Riding three (two from the excavations at Beverley Priory) with half of the material from these counties focused on the Humber estuary. Five come from North Yorkshire and two from County Durham with the most northerly example a sterling of the Cambrai bishop Gui of Collemede excavated at Jarrow by Rosemary Cramp.

Phase 2: Crowned bust types (c.1310-40) (Figure 6.34)

A second wave of imitations appeared from the 1310s, these were less obviously different to the English coins, copying the crowned bust of the English king, and in some cases the legend too. Measures were implemented to scrutinise the coinage on at least six occasions between 1305-19, most being concerned with the export of English silver and prohibitions against the use of foreign coins (Cook 1999a: 253). Metal analyses show that at least until 1320 the continental types maintained a good standard, not falling below the English (Kent 2005: 22), however after this date standards did deteriorate. The most notorious – at least in popular opinion – were the coins of John the Blind of Luxemburg (1310-46) known at the time as 'lusshebornes'. Near-contemporary accounts derided them; Piers Plowman wrote '*as in Lussheborwes is a lyther alay, and yet loketh he lyke a sterlynge; the mark of that mone is good, ac the metal is fieble*' a similar sentiment is expressed in the Prologue to Chaucer's Monk's Tale. These coins were thought to contain

only one-third of the silver of the genuine article, although only John's very latest issues seem to dip to such a low standard (Kent 2005: 23).

The reluctance of contemporaries to hoard later, base coins and measures taken to remove them from currency makes it difficult to estimate the size of the fourteenth-century imitative issue, a problem that may find some answers in the single find data, especially for those of John the Blind and William of Namur (Mayhew 1983: 27).

The crowned bust coins, which comprise 52.98% of the total imitations, are outlined in Figure 6.35. The largest single source present are the coins of Florennes minted under Gaucher of Chatillon, followed by those of John the Blind, William of Namur and Robert of Bethune. The remainder number seven or less. It seems curious that John the Blind's coins were so notorious among contemporaries, when those of Gaucher were more than double in number those of John. This probably reflects the poorer standard of silver on John's issues that scientific analyses appears to show (Mayhew 1983: 149-151). The distribution of the later phase imitations (Map 6.21) appears broadly similar to that of the first phase. East Anglia, the south coast and the West Midlands all show similar patterns, though there is some variation. In Lincolnshire, Kent and the counties south of London coins are more numerous while the concentration of finds in Hampshire is especially striking. The first recorded imitations found in Wales and the north-west are present while the northern range of the imitations is reduced, with numbers north of the Humber lower than seen in the earlier phase.

A number of coins which are not Mayhew types but which could pass alongside Edwardian sterling coins and are probably companion pieces to the sterling imitations are present in the dataset. In most cases these share variations on the long cross reverse, but with different obverse designs (Figure 6.36). There are three main types; the largest group are the WALT type sterlings (eight PAS) of John I with 15, next come the six chateau Brabancon deniers of John II-III (four PAS), six (no PAS) köpchen from Gelderland which may have served as farthing equivalents (Cook 1999a: 253) in a currency in which

provision of penny fractions was not adequately catered for,[115] and finally five double-sterlings of Cambrai and Hainaut (no PAS). Although these types differ in design, there must still have been a level of willingness to accept them.

As these example make clear, understanding circulation relies on a number of assumptions, not least whether the 1299 recoinage was effective in removing the majority of crockards and pollards from circulation. The later phase hoards that include crockards and pollards, most notably Gorefield, may be deceptive because the assumption that those particular coins were drawn from English currency and not from recent imports from the Low Countries (where demonetisation had not occurred) is far from secure. We must presuppose that the reminting of crockards and pollards in 1299-1300 was successful in removing the vast majority of crockards and pollards (Cook 1999a: 252), and therefore that our single finds were mostly lost in the ten years *c.*1290-1300.

Mayhew has suggested that single finds of John the Blind and William of Namur were more numerous than their inclusion in hoards indicates (Mayhew 1983: 27). The fact that the second phase imitations outnumber the first is one clue to the scale of the imports of the crowned bust imitations, with the single finds suggesting general use among the population on a par with that which had been so aggressively fought against in the 1290s, and distributed in similar areas. However, these coins were lost over a longer time span than the *c.*10 years of the earlier group. The companion pieces with similar designs are only a footnote in the story of the imitative sterlings but show a small scale acceptance of alternative designs in some circumstances, as penny and farthing equivalents.

6.4.4 France

The primacy of coins of the French king over minor feudatories gathered pace in the fourteenth century and this is reflected in the finds record (Figure 6.37). Forty-three PVII coins are royal issues (against four that are feudal) and display the diverse denominations then becoming a requirement for trade. The expansion in European minting was only

[115] The Patent Rolls of 1300 mention a London citizen pardoned for coinage offences including importing 'small money' (Cook 1999a: 253).

possible through the acquisition of new sources of silver, which in the early fourteenth century came about through new mines in Bohemia, Austria, Sardinia and Serbia (Mayhew 1992: 131). The most obvious innovation, and one mimicked by Edward I (if unsuccessfully) was the introduction of the large fine-silver gros tournois by Louis IX in 1266 (Mayhew 1988: 74).

Two hoards bear testament to the presence of fine-silver French coins in PVII; the Mayfield (Sussex) hoard which includes seven gros tournois alongside 348 English pennies, and a hoard from Dover with an array of foreign coins, among them 39 gros. Both hoards have been argued not to have come from the English currency pool at all (Archibald 1971: 151; Dolley 1955-7: 154-5). Cook (1999a: 254-5) suggests, however, that gros tournois were used by merchants in England. There was certainly a lack of English high-value silver coins, and it may be that these French issues found acceptance, particularly in London and the southern ports.

6.4.5 Anglo-Gallic

The first coins struck by an English king in Aquitaine are attributed to Henry II, although they may belong to Henry III (Elias 1984: 31). Richard I struck coins both as duke and king and an anonymous issue has been attributed to his mother Eleanor (Elias 1984: 39), none of these early types is known among the English finds. Fifteen coins minted under the English king in Aquitaine are known, with the vast majority (12) being sterlings and demi-sterlings of Edward III along with three deniers of Edward I.[116] Cook's list included only five coins for the whole Anglo-Gallic series (Cook 1999a: 274) so the 15 of PVII combined with the 14 from PVIII mark a significant increase in the known finds.

The obvious route to England for these types is via the sea-routes that were used by the Gascon wine trade and the later movement of soldiers in the Hundred Years War (may have facilitated the movement of coins. Gascon wine was a familiar commodity in later medieval England and imports reached their height in the early fourteenth century. Ships

[116] A further coin of Edward III's Anglo-Gallic series falls in Period VIII and is covered in that section.

from Bordeaux docked at Bristol, Hull, London and Southampton (Friel 2003: 64) so there were several possible points of entry into the country through which coins might enter circulation.

Two PVII hoards contain these coins. Both were deposited *c.*1314-44; the Wyke, Bradford hoard included 4 deniers of Edward I/II among *c.*2000 English, Irish, Scottish and Continental coins, while two were recovered from the Newport hoard (Thompson 1956: 108-9). There are rather more single finds (Figure 6.38) than might be predicted from the hoard evidence, but how they were used remains uncertain. It seems reasonably to assume the Aquitaine sterlings functioned as penny equivalents, given their presence on hoards; it is less clear how the deniers might have been used. In the thirteenth century they were equivalent in value to farthings, which might have been their role.

As Map 6.22 shows, Edward I's coins are spread widely, coming from Ryther (N. Yorks), and excavations in London and Poole. Edward III's coins are more common and rather more dispersed but focus on the east of the country; just one example, from Dorset, appears in the west. This distribution supports the idea that these coins were carried by seamen to the principal ports. The Dorset and Isle of Wight finds point toward Southampton (or, less likely, Bristol) as a point of entry, while the finds in the north could be seen as originating in Hull, and the London finds are more obviously clustered. This leaves the six coins, of which five were found on or close to major rivers (the other is in the urban centre of Norwich). Whether or not these were routes directly relate to the onward movement of the wine trade to minor satellite ports, and then inland, is uncertain. The riverine aspect of the distribution, however, is not in doubt.

6.4.6 Minor contributors (Portugal; Spain; Norway; Germany; Italy; Crusader States)

The main PVII foreign coins have now been discussed but a few other sources are present among the finds, and these particularly from PAS material (Figure 6.39). Four Portuguese and eight Spanish coins add to the earlier Iberian coins, just one is a PAS find. Two are from Whitefriars Priory in Canterbury and most of the remainder were found in, or close

to large urban centres, which could link them with increased contact from 1320s, when English were visiting Portugal and Spain It is unlikely that the Italian and Tyrolean coins represent anything other than chance losses of uncommon foreign coins and the same is probably true of the Cypriot gros petit. The Cologne coin continues the small numbers of such material encountered from PV.

6.5 Periods VIII-IX (1351-1464)

These periods witnessed important changes in Europe, not just in politics and warfare and in social terms, but also in the structure of currencies in Europe. The era is dominated by silver shortage and the rise of gold. These changes manifested themselves at either end of the social scale, with the silver shortage visible in the prevalence of foreign coins being used as substitutes for halfpennies (particularly those from Venice), while the rise of gold is seen in Low Countries imitations of the English gold noble. The silver 'problem' was partly a result of the reluctance of English mints to strike small coins whose production costs, coin-for-coin, were the same as those for larger denominations (Figure 6.40). The pattern of foreign coins entering hoards changes through PVIII, as newly struck foreign coins are in general not being hoarded; the only foreign coins which are put into hoards are those earlier pieces surviving from PVII and still in circulation. So, the only Irish coins in hoards of this period are survivors of Edward I's Irish issues. Numbers of foreign coins in the dataset are summarised in Figure 6.41. Venetian coins clearly dominate, with Scotland providing the only other major contribution. The remainder are of limited significance.

6.5.1 Venice (first incursion c1400-20) (Figure 6.42)

The 155 Venetian coins warrant extended consideration due to their large number and special place in the history of coinage in England. All but five of the Venetian coins in this first incursion are soldini of the late thirteenth to mid-fifteenth centuries. Other coins comprise a single grossi of Pietro Gradinigo (1289-1311) from Surrey, a pierced example of Francesco Dandolo (1329-39) from the Isle of Wight[117] and one 'post-1382' of an uncertain ruler. Grossi were introduced by Enrico Dandolo and by 1217 were in use in the English

[117] Although the devotional value of the coin seems somewhat diminished by the fact that the hole pierces Christ's head.

exchequer as a counter (Brown 1964: 20). Despite this, grossi did not circulate in England in any meaningful way, even though they were valuable coins of almost pure silver (Stahl 2000: 44) and were – Edward I's abortive groats aside – larger than the standard pennies available at the time in England.[118] Unlike the large-module French and Flemish coins (of which there are some examples), they have yet to be found converted into dress hooks, which suggests they were imported into England well after than their date of striking. Coins of Venice are rare finds in England before the fifteenth century after which finds of soldini abound. They began production in around 1330 (Stahl 1999: 96) and show, on the obverse the kneeling doge with a banner, and on the reverse a nimbed winged lion of St Mark holding a bible. The historical and numismatic outline relevant to England was set out by Spufford (1963), while Kent (2005) explored the position pertaining to London and more recently Daubney (2009) has used PAS material to determine distribution patterns. For around fifteen years from June 1400 the small Venetian *soldini* began to enter England in increasing numbers. To contemporaries they were known as *galyhalpens* or galley-halfpennies due to their import via the Venetian trading fleets that came annually to London, Sandwich and Dover to buy wool (Spufford 1963: 132). They found a place in currency as halfpenny equivalents due to the severe lack of small change available in circulation – a product of the mints' reluctance to strike small coins coupled with a general European scarcity of silver bullion. The reaction from the king and council was to prohibit the coins and order the Sheriffs to seize any that they encountered. Surviving records show the numbers confiscated at London and Sandwich, particularly in 1401-2: 251 soldini taken; 1402-3: 476; and 1403-4: 411 , followed by a gradual diminishing down to just 9 in 1415-20 (Spufford 1963: 134; Daubney 2009: 188). Eventually forcible searches of galleys and diplomatic pressure on the Venetian senate temporarily stemmed the tide (Cook 1999: 262). English pilgrims also found that soldini were acceptable (among other Venetian coins) in the Holy Land in the fifteenth and early sixteenth centuries (Kent 2005: 33).

[118] Grossi were important coins in the eastern Mediterranean from the fourteenth century. They were the only acceptable European coin in Alexandria and were also accepted for admission to the Holy Sepulchre in Jerusalem (Stahl 2000: 212-3).

The documentary evidence is clear on the fact that these coins were being imported, and crucially, that they found use in sufficient numbers to be considered a threat to the integrity of the currency.[119] This is supported by the inclusion of 10 in the 7,000+ coins in the Highbury (London) hoard, as well as the three soldini found together at South Walsham (Norfolk).[120] But the real evidence comes from the single finds. Spufford had a limited corpus from which to work. He noted single finds of the first wave from Northampton, Newport (Wight), Eye (Suffolk), Hethersett (Norfolk) and in Somerset (Spufford 1963: 133). Daubney (2009) drew on 119 PAS coins of the first wave. The corpus gathered here includes 152 soldini which are summarised below in Figure 6.43. The PAS records contribute 93.42% of the known examples.

The extent to which soldini were a problem is highlighted in the distribution on Map 6.23. The landfalls of London and Sandwich do have finds in their vicinity but the penetration into the wider country belies their importance.[121] Documentary sources that suggest London was a centre of the *soldini* problem are supported by the coins in the Highbury hoard. The lack of available land for searching in London acts in some way to explain the lack of other finds, but still there is just one find from the City foreshore, elsewhere excavations at Vintry yielded just two *soldini,* although the general pattern of coin finds at the site suggests a significant slowdown of finds after 1350 (Kelleher and Leins 2008: 231). The densest concentrations are to be found in East Anglia, the south coast, Isle of Wight and particularly in Buckinghamshire, Northamptonshire and Warwickshire. A scatter of finds occurs to the north of this group and more thinly in the north-east of the country.

A few dateable coins from other Italian sources which fall broadly into these periods are known. A Milanese sessino of Filippo Maria Visconti (1442-7), a Pisan quatrino, a

[119] The silver in contemporary English pennies weighing 1.17g was .925 fine. The soldini contained 0.45g of silver (Stahl 2000: 220).

[120] Soldino hoards are limited to the Venetian hinterland and its Greek colonies (Stahl 1999: 111, map 7), the two English finds are the only European examples outside of these core areas.

[121] It seems that the Sandwich stopover did not cause the local currency to become overrun with soldini, there is only a single PAS find within 10km of the town. An explanation might be that as Sandwich was on the route back from London to Venice that the soldini may already have been used in the capital, but records of seizures of modest numbers of soldini at Sandwich show that some, at least, were there (Spufford 1963: 134).

bolognino of the commune of Perugia, a gold ducat of Pope Eugenius IV (1431-7) from Sandwich Bay (Kent); from Genoa a quattrino excavated at St Augustine's Abbey, a pettachina found in Pembrokeshire and a minute from London. From Bologna come two Norfolk finds of a grosso and a grosetto. A Bolognese grosso recovered from a small hoard from Hooe (East Sussex – J36) along with English groats indicates some level of use in contemporary currency.

6.5.2 Scotland

PVIII saw successful attempts by the English government to reduce the impact of Scottish coinage circulating in England. In 1356 a proclamation of Edward III decreed that Scottish money should no longer be current in England (Stewart 1967: 25) but in 1374 a Scottish groat was allowed to pass as three English pence, reduced in 1390 to two pence. (*Ibid*: 35-6). From the reign of Robert III the stylistic influences on Scottish coins (particularly on gold) shifts to the French rather than the English model and prefigures the wider range of foreign coins available in Scotland in the later medieval period.

Fifty-seven Scottish coins of PVIII (plus eight of David II's first coinage dated loosely to the early 1330s) are present in the dataset (49 PAS), with three coins of PVIII or IX. On the face of it this seems to suggest that measures taken against Scottish coins were successful in England. The coins are outlined in Figure 6.44. Most prolific are the pennies with more of these from the 20 year reign of Robert II than David II's reign, although overall numbers of coins favour the latter over the former. Halfpennies are the next most prolific, all of Robert II and III, followed by groats and halfgroats (mostly of David II). No farthings are recorded.

Pennies have the widest range and have been found in East Anglia, the Midlands and Lincolnshire, single examples come from Bishop Auckland (Durham), the south-east coast and the Thames and Avon valleys (Map 6.24). Somerset and Herefordshire mark the westerly range, while there are none in the north-west. Groats are found from Northumberland and Durham through Yorkshire and Leicestershire to Hampshire and the

Isle of Wight, with singles in Norfolk, Suffolk and Worcestershire. The half groats mirror the linear pattern of the groats but with nothing north of Well (N. Yorks.). Halfpennies have been found in East Anglia and the East Midlands, with South Ferriby (Humberside) and Westbury (Bucks.) marking the northern and southern range. This distribution is biased towards coastal areas of Kent and East Anglia suggestive of an east coast trade with Scotland and one where the smaller denominations were more likely to operate. The inland finds tend to come from the areas of greatest density of general finds.

6.5.3 The Baltic

Fifteen Baltic coins have been recovered in England and Wales, all of which fall into PVIII-IX (Figure 6.45). The majority (12) were struck for the Masters of the Teutonic Order in Prussia with others from Estonia, Gotland, Poland and the Livonian Order. In the early Middle Ages the Baltic was the principal trade route between eastern and western Europe (Lloyd 1991: 3-4). It was in this region that the Hanse formed, these were essentially associations of merchants and later towns, set up to protect shared interests in matters of trade. Although not at the core of the Hanse's trading networks, England became an important destination for commodity exchanges. As mentioned earlier, merchants of Cologne maintained a guildhall in London and many other towns and there is a temptation to link the presence of these coins to the Hanseatic trade.

The coins are dominated by the Teutonic Order, whose Grand Master was the only prince admitted to membership of the Hanse (Lloyd 1991: 9), and the other sources are intimately linked to the activities of the Order. Gotland was a vital meeting place for traders with many Germans settling in Visby (Lloyd 1991: 4). In 1237 Henry III issued a charter declaring Gotlandic merchants free of charges on imports and exports (Lloyd 1991: 17). Dorpat had been established by the Order in 1224 as part of the Northern Crusade, and in 1347 Estonia was purchased by them from Denmark and added to its existing territory of Livonia (Lloyd 1991: 4, 10). Poland was also intimately linked with the activities of the Hanse. The Teutonic vierlings have an average weight of around 0.5g and could in theory have circulated as a halfpenny equivalent in certain cases, while the schilling is larger and closer to a penny (Figure 6.46). The only excavated example was a vierling from

the infirmary hall of St Mary Merton Priory (Surrey) which was thought to be intrusive (Miller and Saxby 2007: 86).[122] The artiga and Dorpatian schilling are more difficult to interpret being unique examples in the corpus, but the 0.5g weight and the reverse design of the artiga bearing three pellets quartered by a short cross might have seen them circulate in some way, equally they could have been discarded although both findspots are well away from any coastal entry point. The witten is another silver coin whose place is uncertain, the obverse design carries an Agnus Dei however so could possibly have been retained for its devotional properties, that said an earlier Gotland coin was among *c*.1600 coins in the hoard from Knaresborough Priory (Blunt and Pagan 1963: 117). Despite Anglo-Baltic trade links and this group of material coming from a strongly linked group of nations another explanation, favoured by Cook, suggests itself. The material fits the period of the Northern Crusade in which English nobles played a part up until the Teutonic Knights were defeated by Christian Poland in 1410 (Cook 1999a: 263-4). Hanse coins, in the shape of Cologne pfennigs are present in PV-VII, but not VII and then reappear in PVIII-IX. This resurfacing might support their derivation from the Northern Crusaders.

The distribution (Map 6.25) shows a heavy bias toward the counties bordering the north sea coast, with the majority of coins in an arc from North Yorkshire through Humberside and Lincolnshire into Norfolk and then south of the Wash. The remainder are in north Kent, to the east of London and Hampshire. This group is clearly only of minor importance, but it provides some support for the limited circulation of such coins.

6.5.4 Anglo-Gallic

The defeat of the English by the French at Formigny in 1450 ended the Anglo-Gallic coinage with the final issues struck at Le Mans and St Lô in 1449. A range of material, from the later reign of Edward III to that of Henry VI, are known as finds in PVIII and IX both as single finds and in the seven hoards of the period that include Anglo-Gallic pieces (Figure 6.47). In PVIII the majority of the coins are silver issues of Edward III and the Black Prince, and all are sterlings. The exception is the gold coin from Abbotsbury which was found

[122] It is also interesting to note that another rare foreign coin for an English find – an Anglo-Gallic denier of Limoges – came from the same site.

alongside an English noble. In PIX the Anglo-Gallic element is principally gold in the two large finds so far discovered, the Fishpool and Reigate hoards. The saluts in the Reigate hoard comprised 7.35% of the gold coin total. Although we know none as single finds, it seems they had some currency role in England. A total of 14 Anglo-Gallic single-finds of PVIII-IX are known, all are silver (Figure 6.48). The earliest is a late denier of Edward III, adding to the 12 Edward III coins from PVII. There are three of the Black Prince, one of Henry of Lancaster and nine coins spanning the reigns of Henry IV-VI. The denominations are a mixed bunch reflecting the multitude of silver and billon types minted over this period. The excavated examples come from the Hamel in Oxford, and St Mary's priory in Surrey, this latter also yielded an unusual Baltic coin.

The distribution of PVIII-IX Anglo-Gallic single finds is remarkably similar to the PVII pattern (Map 6.26). Again the same focal areas occur; London, Hampshire and the Humber basin have finds, as do Norfolk and Buckinghamshire. Areas not represented in PVII include Oxfordshire, Kent and particularly Devon and Cornwall, while East Anglia and Lincolnshire are empty of finds. The nature of the distribution supports the entry of the coins via major ports with only a limited penetration beyond the coast. Where coins have travelled further inland they most often come from excavated contexts, the Oxford, Winchester and St Mary priory coins all follow this pattern, and so could be said to reflect the physical residue of contact networks of high status institutions and the wider world. The hoard distribution partly correlates with the single finds, however two hoards found in close proximity in Cumbria hint at the availability, at least in the locality, of Anglo-Gallic pieces. This may well be a case where use was made of what was available in a time of shortage of silver currency. The Stanwix hoard also included kopchen which are otherwise not hoarded coins. The gold hoards are reminders of the make-up at the top end of the currency, one in which foreign gold coins clearly played a major role. Lancastrian saluts from the Continent also played a minor role in hoards, although as single finds they are absent (Cook 2001b).

6.5.5 Portugal

Both politics and trade linked Portugal and England in the medieval period. The Treaty of Windsor in 1386 saw John of Gaunt's daughter Philippa marry the Portuguese king, and a small but regular trade brought goods such as wine, dried fruit, olive oil, oranges, kermes dye, cork and salt to Southampton, London and Bristol (and sometimes Exeter) (Childs 1995a: 21). Portuguese coins are not a feature of the hoards of PVIII-IX but 11 single finds (two PAS) hint at a certain level of familiarity (Figure 6.49). Several of the sample coins came from excavation. The Writtle real accompanied contemporary English coins of Henry V and VI but the report suggests that Portuguese copper and billon coins found use as jettons (Rigold 1969: 78). These coins preface a large influx in PX (see below). Although only a small sample the coins show a tentative pattern (Map 6.27). Two main groups, one around London and another more dispersed group in the south-west, are clear with outliers in Norfolk and Warwickshire providing the northernmost finds, none come from Wales. This distribution links in with known shipping routes from Portugal to England.

6.5.6 Minor contributors (Germany; Spain; Crusader States)

These minor groups are of little import (Figure 6.50). The last significant contribution of German coins comes here and it seems reasonable that the Cologne and Wismar coins should be seen as part of the Baltic group. The Spanish pair continues the modest influx seen running from PV/VI-PX while the Rhodian coin is the last of the small group of crusader states coins found in England.

6.6 Period X (1464-1544)

The overall numbers of coins recorded for PX sees growth on the low figures in the previous period and within this group are several important groups of foreign material, outlined in Figure 6.51. This period is dominated by coins of the Venice, Burgundian Netherlands, Portugal and Ireland. Small numbers of French coins were still coming in as were Scottish, Spanish and a very few Italian. Various factors were at play in the movement of these different coinages. That of the Burgundian Netherlands appeared as a result of a monetary agreement between the countries. The second wave of Venetian

soldini came about in the same manner as the earlier incursion, as a substitute for the halfpenny, while Irish coins appeared as Irish mints were reopened under Edward IV.

6.6.1 Venice (second incursion c.1500-20)

In *c*.1500 a second incursion of Venetian soldini entered English currency. Southampton had, by this time, taken over from London and Sandwich as the sole port of call for the Venetians (Spufford 1964: 137) whose principal concern was the purchase of cloth (Daubney 2009: 194). This unwelcome influx may have ceased by 1521 as the single finds known at the time of Spufford's writing were all of Leonardo Loredan (1501-1521), recent finds have only added a single soldini of a later doge. Issues of the doges from the mid-fifteenth to early-sixteenth centuries are represented in varying numbers as illustrated in Figure 6.52.

Loredan soldini dominate the finds (78.47%) and both the breakdown by doge and the homogeneity seen in the English findspots reflect the soldini currency in Venice rather than periods of sustained incursion into England (Figure 6.52). The reason for their acceptance seems to have again been the lack of small denominations by the mints, although Daubney links the penetration of finds to some areas of wool and cloth production (2009: 194). A further source for soldini, this time overland, is revealed by documentary evidence. *Scarsella di corrier* were commercial couriers bags which were sent weekly to Bruges and Antwerp and in one particular instance 14,000 soldini are recorded as being sent on to London in five batches (Daubney 2009: 191). The impact of this source remains uncertain, although the distribution pattern favours the majority of the finds coming via galleys to Southampton.

Soldini were present in four of the hoards hidden towards the end of PX, three were in the Blakeney (Norfolk) and Maidstone (Kent) hoards and one each were in the Fonthill Gifford (Wilts.) and Wanswell (Glos.) hoards in each case presumably functioning as halfpenny equivalent coins. The single finds again highlight how hoard evidence does not represent fully the circulatory reality. The PX soldini number 144 of the dataset (137 PAS) illustrating

the value of recording seemingly standard single finds. Daubney (2009: 194-8) cited 117 examples in his survey. The spread of finds in Hampshire, along the south coast and particularly on the Isle of Wight is encouraging evidence for suggesting dispersal from Southampton (Map 6.28). Nothing near this intensity of finds comes from elsewhere although cluster in Surrey, Wiltshire and Somerset are visible, as is a more dispersed pattern in East Anglia, the central Midlands, Lincolnshire and Yorkshire.

Detecting patterns will have made an impression on the level to which this can be stated with any certainty but in terms of the national picture this second wave is more widespread than the first, where coins were concentrated in the centre of the country. This wave penetrated further north and also is more represented in the southern counties and the almost even spacing suggests velocity of circulation.

6.6.2 Burgundian double patards

On 23 August 1469 a monetary agreement was published in Bruges which elaborated that the coinage of England should circulate in the Low Countries and that of Burgundy in England. The detail of which meant the double patard of Burgundy (Figure 6.53) was to be accepted in England at 4d – the equivalent of the groat – the patard at 2d and the gold florin of Burgundy at 3s. 6d. with its half in proportion (Spufford 1964: 113). The double patard at 3.16g and 0.878 fine was similar in size and weight to the English groat of 3.11g and 0.925 fine and would play a significant role in currency for over 45 years, however patards seem not to have circulated. Since Spufford's survey the number of double patards in hoards and as single finds has increased markedly. The majority of the single finds (84) are of Charles the Bold (1467-77)[123] but those of his predecessor Philip the Good (5) and successor Philip the Fair (2) are also present in small numbers probably reflecting the circulating medium in Brabant and Flanders and the main period of the import of coins, even after the alliance between the countries failed.

[123] A further five double patards have not been identified to a specific ruler.

The level of use of these coins is partially shown by their appearance in hoards. Sixteen of the 89 hoards of the period include double patards (Figure 6.54). The hoard evidence is compelling if variable with double patards providing a range of percentages of the overall number of coins present. These proportions are generally higher in the smaller hoards, perhaps better reflecting currency use at the lower end of the social scale. There is no observable chronological trend in the hoard evidence other than to say that the changes in the coinage seen in 1544 effectively ended their hoarding. Single finds of double patards (known as double-placks or Carolus-placks by contemporaries) are known over much of England and Wales, Spufford listed five (Spufford 1964: 114-5), Cook was able to add a further 26 (Cook 1999a: 275-6), the PAS material includes a further 60 examples, these are plotted below. There is clear negative evidence to suggest that fractions and multiples of the patard were not imported and used in the same way as the doubles were, despite the Bruges agreement naming them as part of the permitted imports. Just one patard is among the finds, as is one demi-patard and one quadruple patard, all of Philip the Fair.[124]

The densest concentrations of double patards are in Norfolk (13)[125] and Suffolk (9) followed by Lincolnshire (5), the Isle of Wight (4), trios from Greater London, Essex, Hertfordshire and Warwickshire; pairs from Nottinghamshire, West Sussex, South Yorkshire, Kent and South Wales; and singles from East Sussex, Buckinghamshire, Bedfordshire, Leicestershire, West Midlands, Staffordshire, Derbyshire, North Yorkshire, Lancashire and Herefordshire (Map 6.28a). Other counties are blank of finds. Looking at the broader national picture it is East Anglia and a band across the south of England where most have been found – the areas closest to source presumably via the principal ports. The hoards containing double patards fall largely within this area (although Oxfordshire

[124] The single patard was found near Louth (Lincs.), the quadruple patard came from Ringstead, Norfolk and the demi-patard from West Rudham, Norfolk. All of these finds were reported through the *Coin Register*, none are recorded on the PAS. A further three coins from coastal sites have been recorded; 1 and 2. Marie de Bourgogne (1477-82), a double mite from Richborough, Kent, and a gigot from Winchelsea, E. Sussex. From Southampton came a copper mite probably of Mary & Maximillian (*c.*1480). These finds are of little overall importance and probably represent chance losses or discards of unusable coins in ports.

[125] None of these 13 Norfolk coins is recorded on the PAS so the overall figure could potentially be much higher.

and Cambridgeshire contain hoards with a substantial Burgundian element where no single finds are known). This picture also suggests something about what coins were used in the countryside, none of the major urban excavations has produced a double patard and yet many are known as single finds

Looking at this particular type of coin in isolation, without reference to the English contemporary it circulated as equal to may hide relevant facts. Map 6.29 plots the double patard single finds against contemporary groats (Edward IV-Henry VIII). In coverage alone the PX groats are more widely distributed, but with the same curious paucity of finds in Berkshire, Oxfordshire, Gloucestershire, Wiltshire and Avon, and to the counties west of the river Avon. East of the Avon and into Kent groats are more widespread, particularly in Hampshire, the western half of the Isle of Wight, along the South Downs of Sussex and the North Downs of Kent. Across the Midlands, from Worcestershire north-east to Lincolnshire and up to York groats are much more prolific and are also present in Cheshire, Lancashire and South Yorks.

6.6.3 Ireland

Minting in Ireland had ceased Edward I's coinage of to that of Henry VI,[126] whose Irish coinage is made up of a series of stylistically different but chronological issues. The first, in 1460, saw minting resume at Dublin and Waterford with the anonymous 'Crown' coinage. In order to prevent the draining of Irish silver abroad (as had occurred with all the previous issues) these were struck at a weight three quarters that of the English standard, when the English weight was reduced in 1465 the Irish standard was correspondingly lowered to two thirds that of the English (Spink 2003: 128). Ten English and Welsh hoards include Irish coins and are set out Figure 6.55. Irish coins were not being hoarded until the 1470s and become more prevalent from c1480-1500, contributing between 4-7% of the hoards over that period.[127] The less than 1% Irish in the Hartford hoard signals the end of their hoarding in any meaningful way. The Maidstone hoard includes coins of Ireland,

[126] Other than two very rare emissions, a halfpenny of Edward III, and a penny of Henry VI.
[127] The 'Norfolk' and Clay Coton hoards do not conform to the overall pattern.

Burgundy, Portugal and Venice and in this regard is exceptional among hoards from the 1520s-40s.

Single finds of Irish coins in the dataset are almost all of Edward IV (54) with one of Henry VII. The PAS contributes 43 of these, including a rare early penny of the anonymous Crown Coinage from Newent (Glos.), this is the only coin to fall before the PX boundary (Figure 6.56). The most prevalent denomination is the penny (81.81%) followed by groats and then halfgroats. The design of the Cross and Pellets coins was almost identical to the English types with many of the penny reverses incorporating a central quatrefoil (as York coins) or D (for Durham) which may help to explain their easy circulation alongside English pennies. This fact may also contribute to the under-representation of such coins in the dataset as many will have been loosely identified as York or Durham pennies rather than Irish. The distribution of the Irish material is shown in Map 6.30. The single finds are generally in East Anglia and the Midlands or those areas where finds densities are highest. The distribution of the single finds shares some similarities with that of the hoards. Three of the hoards with the greatest numbers of Irish coins are in the north-east, with two in Yorkshire and one in Cleveland. The Grasmere hoard continues the northern distribution into Cumbria. A scattering of single finds in both the north-east and north-west. Given the density and number of hoards in central England it is telling that just a small proportion of these southern examples include Irish coins, and where they do the numbers tend to be low. The single finds are slightly more populous but are still scattered quite thinly with the south-coast counties particularly devoid of finds. In Norfolk and Suffolk there are more single finds than elsewhere. The interesting pattern here, and one for future study, is the number of hoards in the north including Irish coins. The single finds along the Lancashire and Cumbrian coasts may point to an Irish zone of circulation through Scotland and into England from the north.

6.6.4 Portugal

Period X is the period in which Portuguese coins are most heavily represented with 31 coins (59.62%). The first English finds were in the early thirteenth century and ran to the

early sixteenth with the majority coming from the long reign of Alfonso X (1438-81). The coin most often encountered in hoards is the chinfrao of Alfonso V (1438-81) which first appears in the hoard from Deeping St James and in 11 other hoards up to *c.*1537-44 (Figure 6.57). Their occurrence in hoards is only a minor one with pairs or singles present in the larger hoards (Figure 6.58). Although Portuguese gold cruzados were in two hoards; one from Sherborne – where they and Spanish gold were accompanied by one Spanish gold excelente and 184 English halfpennies – it has been argued that at the contemporary exchange rate this number of halfpence corresponds to the value of the cruzado (Kent 1985: 392); and the hoard from Cefn Garw where one gold coin accompanied eight English gold (Kelleher 2007: 222, no. 2). The single finds are summarised in Figure 6.59. Chinfrões are the most common Portuguese coin type found in England and Wales, they were similar in size to the English half-groats were previously identified as being 'dandyprats' (Grierson 1972: 80-5), Cook had suggested that a proclamation legalising 'half-groats not being the King's coin' referred to these but Cavill has shown the identity of these uncertain coins to have been a debased English issue of half-groats from 1492 (Cook 1994: 71-4; Cavill 2007: 284-5). A second Portuguese coin which appears more often as single finds than in hoards is the copper ceitil.[128] These are enigmatic inasmuch as their copper fabric militates against their circulation. Despite this 14 (3 PAS) are present in the dataset and are shown on the distribution (Map 6.31). The suggestion has been offered that they functioned as jettons (Rigold 1969: 78)

6.7 Conclusions

The aim of this chapter was to analyse the foreign coins that came to England and Wales and, through distributional mapping and comparison with other evidence begin to understand how they functioned within the currency. The material falls into three broad categories:

- *Currency*. These are coins that came into England as functioning monetary objects with the intention to be used as such by their carriers. Coins like these would

[128] There were 45 in the Oxford (Carfax) hoard and one in the Bleadon hoard (Allen 2012a: 367-8).

probably have travelled in bulk and did not need to be carried by individuals from their country of origin. Much of the Low Countries coins are of this sort, such as the sterling imitations and double patards.

- *Residue*. This group is represented by coins that were lost because they were brought to England by a visitor from a foreign country. The Byzantine coppers are a good example of this.
- *Keepsake*. This final group are the opposite of the residue coins as they were foreign pieces brought to England by returning travellers, in most cases soldiers or pilgrims. The Anglo-Gallic coins as well as those from the Crusader States are good candidates for this.

In the early Periods I-IV the levels of coin entering England and escaping the exchanges were small and proportional to the generally low levels of currency. These pieces reflected local as well as exotic contacts from Scotland to Byzantium. Through Periods V and VI, when English mints were in a position to produce significantly more coins, the levels of imports from overseas rose in accord. Most of these were of those currencies most closely allied with the English coins, namely the Irish and Scottish, but other intrusive pieces came to fill gaps in the currency, either at the high-end – seen in the Islamic and Byzantine gold coins – or at the lowest levels, such as the petits denier found in small numbers and probably used as halfpence. Distributional analysis of Irish and Scottish coins in the North West suggests a regionally contingent grouping on an Irish Sea axis which is worthy of future study. In PVII the currency was plagued by foreign imitations because the English coinage was an international success and widely imitated.

In PVIII-IX a mix of sources are present, representing the English conflict with France, the trading fleets of Venice and the smaller groups like the Baltic material which would bear comparison with studies of other archaeological material from that region. By PX the source of coins from the continent had shifted to better reflect the emerging economies and powers in the Low Countries and Mediterranean. Portugal, Spain, Venice and the Burgundian Netherlands all played a significant role in contributing to the foreign element

in circulation and in many cases such coins were hoarded alongside English and Irish money. There was an element of pragmatism at this later stage and a level of occasional acceptance which would reappear in proclamations of the later Tudor period allowing certain foreign pieces to circulate. Overall there are a number of very interesting new patterns emerging from this data which require future study. For example the coins from Spain and Portugal at the end of the study period are worthy of research with the date range extended into the seventeenth century.

CHAPTER SEVEN

SECONDARY USES OF COINS: ADAPTATION AND MUTILATION

Little attention has been paid by numismatists to later medieval coins that show evidence of use beyond normal currency (but see Kelleher 2012; Harpin 2012). This chapter examines coins from two perspectives, first are those that have been physically adapted by the *addition* of stones, gilding or mounting; some for fashion or as a display of wealth or affiliation; others as prophylactic or amuletic objects. The second treatment concerns coins that are subject to *subtraction* by mutilation in the form of bending, piercing or cutting, either as the physical embodiment of a religious vow or in becoming ceremonial paraphernalia. In each of these transformations a coin was removed from circulation at a particular point in its life and manipulated to allow it to perform in a new way. Three main groups of adaptation are identified in this thesis; 1) Coins used in the making of dress accessories, usually forming the core of a piece of jewellery and beautified by gilding or the setting of stones. These pieces often incorporate some of the visual characteristics of the coin in the overall presentation; 2) Coins which have been folded or bent by human, rather than post depositional action, for a particular thaumatergical (or other) purpose; and 3) Pierced coins. Each of these three variations on a theme will be discussed below, in a very few cases several forms of adaption are combined in a single object – these will be explored more fully where appropriate.

7.1 Coin jewellery

Figure 7.1 lays out the corpus of coin jewellery revealed by research for this thesis. Of the finds 79% (75) derive from metal-detecting while the remainder are from excavation or an unspecified source. Entries are ordered by a combination of their chronological place and the type of display item they imitate. Five main groups of jewellery have been identified: pendants, badges, annular brooches, dress hooks and rings.[129] Included in the statistics are a number of pre-1066 objects; 19 coin-brooches and two pendants, one of the Danish king Sven Estridsen and one Byzantine coin of Romanus III. These fall outside the date

[129] A small number of miscellaneous items are known which do not fall into these categories.

range of the more general discussion in this thesis but are included here on two counts. Firstly, there is a well observed fashion for coin 'badges' in this style that emerges in the mid-eleventh century and runs to at least 1158 (Williams 2001; Leahy 2006), so excluding these slightly earlier objects would mask the overall trend. Secondly, once adapted, a coin's lifespan was no longer contingent upon it being current in circulation, an observation that is especially important regarding brooches made out of antique or 'found' objects.

7.1.1 Pendants

Grave finds in particular show that coins were used as pendants in the early Anglo-Saxon period (Leahy 2006: 276); most often Roman coins of bronze or occasionally gold and silver. In rare cases such as an Anglo-Saxon grave at Streethouse, Redcar and Cleveland a string of eight beads with a pierced 'antique' Iron Age gold stater at each end was found (Leins *et al* 2006: 82). The common form for these early types of suspension was a single pierced hole but coins could be more elaborately soldered with suspension loops and would occasionally form multi-coin composites of high status (for example Bland and Loriot 2010: 96-106).

Six examples of coin pendants of the later medieval period are discussed in this section. Four (from Herts., Kent, Suffolk and Sussex) are recent metal detector finds, one has no known provenance and the sixth is a British Museum object and the only piece manufactured using a gold coin. The silver coins used come from England, Byzantium and Denmark, all are gilded (with the possible exception of the Ditchling example) and have their suspension loops intact, these are riveted in the earlier examples and soldered in the later. The gold coin reveals highly intricate decoration in the form of a twisted wire border and small loop. Coins simply pierced for suspension are discussed below (section 7.3). Most early pendants were simple and small, and as personal jewels – worn underneath clothing – they often incorporated prophylactic designs or materials with the dual function of protection and devotion in mind (Lightbown 1992: 202; Cherry 1994: 24). They were often handed down in families as fond mementoes of the dead (Lightbown 1992: 203)

theoretically extending the 'lives' of the coins beyond what might usually be suggested on numismatic dating alone.

1. Byzantine pendant from 'Ware area', Herts.

In 2007 a silver-gilt Byzantine coin mounted as a pendant was discovered by a metal detector user in 'Ware-area', Herts., and subsequently acquired by the Hertford Museum (Figure 7.2a). The coin used for this pendant is a silver miliaresion of Emperor Romanus III (1028-1034). The obverse depicts a haloed Virgin Mary holding the infant Christ with a continuous inscription over both faces of the coin reading '*Whoso has set his hope on Thee, Virgin all-glorious, prospereth in all his works'*. Byzantine coins are rare in England (see Chapter 6) and this is a type of particular scarcity (Sear 1987: 351). Romanus III was particularly devoted to the Virgin to whom he attributed his escape after the defeat of the Byzantine army near Aleppo in the year 1030 (Grierson 1966: 133).

Although the coin itself is incomplete (between a half and a third has broken away), the two-ridged suspension loop and ring survive. The loop is fixed to the coin by a single rivet, a small hole can be seen in the border just behind the loop, either an abortive initial site for the rivet or more probably an earlier suspension hole. Both unmounted specimens of this type in the British Museum collection have similarly positioned holes and 28% of the miliaresia from Sweden are perforated in this way (Hammarberg *et al* 1989: 13). The coin, loop and ring are all gilded, suggesting that the piece was gilded only once the adaption was complete. The orientation of the loop above the Virgin and Child image strongly suggests that this was the side intended for outward display. The intact jewel would have had a diameter of *c.*21mm and would therefore have been clearly visible to any onlooker in close proximity.

The prophylactic qualities of this pendant are both iconographic and textual. The image of the Virgin and Child was a powerful visual metaphor in medieval Christendom and carried potent associations with the Holy Family. It is an image found in a wide range of visual media including paintings and sculpture and popular on jewellery throughout the Middle

Ages – particularly from the twelfth century when a Virgin cult in the Western Church inspired a wave of church building across Europe (Deevy 1997: 79). A ring found in the early fourteenth-century grave of Archbishop Grandisson at Exeter Cathedral bears a half-length figure of the Virgin and Child (Alexander and Binski 1987: 482; Cherry 1991b: 206) and mirrors a more recent find from Pencaemawr, Wales (Redknap 2000: 50-1). Pilgrim badges dedicated to Our Lady from various English shrines carry the same image and are found widely in London (Spencer 1998: 149-154). Mary was the patron saint of a number of groups in medieval society including clothworkers, fishermen, gold-and silversmiths and tailors.

The second distinctive attribute here is the accompanying inscription in Greek. Later sources, such as the fifteenth-century medical practitioner Thomas Fayreford's *Commonplace Book*, speak of the importance of unreadable or 'secret' inscriptions in charms. Quoting John of Arderne's *Liber medicinalium* (*c*.1370), Fayreford records that 'for this reason I used to write [the amulet] in Greek letters that it might not be understood by all the people...and let it be made secretly that every one should not know the charm lest perchance it should lose the virtues given by God' (Murray Jones 2007: 97). Thus Greek script, by virtue of its mystery, carried an intrinsic power. A late tenth-century coin brooch of Nicephorus II (963-969) from Sporle, Norfolk (Figure 7.2b) was specifically mounted to display its reverse which carries an inscription in Greek translated as '*Nicephorus by the grace of God Imperator and pious King of the Romans*'. Anglo-Saxon copies of manuscripts include Greek sections of text but this is more often respectfully copied rather than understood (Bodden 1988: 232) implying the wearer of the brooch was tapping in to the power of the inscribed words as well as their literal meaning.

The route taken by this coin from Constantinople to Hertfordshire cannot be definitively charted but one can suggest that in its first phase of life it was pierced and worn as an amulet, probably in Byzantium based on the prevalence of pierced coins in Byzantine hoards. Williams has suggested a route from Byzantium into England via Scandinavia (2007: 116) where Byzantine coins were imitated in local material culture including

coinage and fibula brooches (Roslund 1997: 244). Roslund argues that Byzantine coins, and a range of other objects excavated in the Scandinavian trading centres, were more likely the result of trade with north-western Rus and the movement of pilgrims than direct payment for military service (*Ibid* 1997: 292-3). Byzantine coins in Scandinavia are not sufficiently common to demonstrate any large influx of money into circulation at a particular point, although there were two miliaresia of Romanus III among the over 600 coins in the Oxarve (Gotland) hoard (Grierson 1966: 129-30) and a unique Danish coin crudely imitates the Madonna, probably using the miliaresion as a prototype (Steen Jensen 1995: 94). Williams puts the deposition date at *c*.1040-1100 (2007: 116). It is likely that the suspension loop and gilding were applied in Scandinavia, as the method is very similar to the Mildenhall pendant (below) and a range of Byzantine pendants found in Sweden (Hammarberg *et al* 1989: see catalogue nos. 596, 597, 1003, 1040). Pendants were a popular form of jewellery in Scandinavia, either singly or in chains of coins, so whether this coin had counterparts or was always a single entity is uncertain. At some later date this object was brought to England and worn in devotion to the Virgin and Child. Whether it was broken and then discarded or whether this damage was the result of the plough is uncertain.

This find provides further evidence in support of Byzantine finds coming to England at this date. An intriguing group of eleventh-century coins and seals from London is enough to suggest tentative links to urban centres at this period, as are two seals from Winchester (Egan 2007: 114, 116; Biddle 1964: 195-197). The Ware pendant provides further evidence of the movement of material culture from the eastern empire to England, in this case via Scandinavia, and adds to the examples seen in Chapter 6.

2. Mildenhall, Suffolk pendant

This gilt coin-pendant, recovered from Mildenhall in 1987, is in the British Museum collection. The coin is a Danish penny of King Sven Estridsen (1047-1075). The obverse has a pattern of parallel motifs creating a loosely cruciform arrangement with pellets-in-crescents in the angles (Figure 7.3). The reverse consists of a decorated cross with

incurved sides and the blundered moneyers name in Roman letters +LI LVI IIH IIII rather than the usual runic script. Roskilde may be the mint (Archibald 1991a: 21). The huge numbers of Anglo-Saxon pennies found in Scandinavian hoards and their influence on domestic production, particularly in Denmark, identify strong monetary links between the two areas. There is a period of Byzantine influence seen for a short time in Sven Estridsen's reign argued to have come as a direct result of the dispersal of the great treasure brought back by Harald Hardrada and his soldiers from their time in the Varangian Guard and picked up as prototype material by the Danish moneyers (Grierson 1966: 129; 1991: 74) but see Chapter 6 for arguments against this as the main method by which Byzantine material culture coins entered Scandinavia. The movement of money was not simply one-way traffic from England to Scandinavia. Small numbers of coins came the other way in the eleventh century (Archibald 1991a: 19), such as the Scandinavian coin (dated *c.*1000) found at New Romney which was converted into a brooch in England (Archibald 1993: 149).

The coin has a suspension loop attached by a single dome-headed rivet at the head of one arm of the obverse 'cross'. Until the middle of the eleventh century holes on Danish pendants are pierced randomly and it was the need to express Christian sentiments that saw them placed at the terminals of the cross (Steen Jensen 1995: 100). The 90˚ die axis of the coin means that the suspension loop also sits squarely in line with the vaguely cross-shaped reverse design. Loop, rivet and coin have been gilded as a single event with the reverse side showing a greater degree of wear indicating the obverse was most often facing outward. This coin probably came to England already converted (Archibald 1991: 22) as it's composition mirrors Scandinavian coin jewellery of the period and is thought to have been worn around the neck either as a pendant or a chain of coins (Archibald 1993: 149), as with the Ware area example we cannot be sure whether this object was originally part of a larger composite piece.

Mildenhall lies in the north western part of Suffolk, some way inland from any obvious port of entry on the road between Cambridge and Thetford. However the find-spot is

within the Danelaw suggesting links to a Danish heredity and the desire for the wearer to express something of this identity. The lack of obvious damage makes it likely that this pendant was lost towards the end of the eleventh century.

3. Gilt three-stone pendant (Henry III penny)

This unpublished object has no provenance and was identified from photographs as it passed through the Export License system en route to a private collection in Jerusalem.[130] The coin used is a class 5b2 penny of Henry III's Long Cross coinage minted *c.*1250-5 and was struck in London by the moneyer Davi. The Long Cross coinage circulated from 1247 until it was replaced wholesale by Edward I's reformed currency of 1279. This coin was overwhelmingly likely to have been removed from currency within its period of use although occasional abnormal survivals are known from large hoards such as Tutbury which was deposited as late as 1321 (Kelleher and Williams 2011: 78).[131] The obverse inscription reads HENRICVS REX III and the obverse DAV ION LVN DEN.

The coin is gilded on both sides. This has partially worn away at the edges and on the obverse, particularly on the king's face and some of the inscription. A plain circular loop has been soldered to the coin at one of the terminals of the reverse cross along with three silver low-relief collets, two in the uppermost angles of the cross, the third halfway along the arm of the cross opposite the loop, each equidistant from the other. Surviving intact in each collet is a red insert, probably of paste or glass.

This is one of the few late medieval coin jewels where the stone survives; a tenth century coin of Aethelstan excavated at Barking Abbey had a large stone set into a collet on one side while the second, known as the Lee or Lockerlee penny, is composed of a red stone (purported to have come from southern Spain) set on a groat of Edward I (Reid 1922-3)

[130] The find was reported as having been made before 1996 and thus avoided declaration under the Treasure Act (Figure 7.4).

[131] The numbers are, however, extremely small, just three Tutbury coins surviving in modern collections are Long Cross types (Kelleher and Williams 2011: 79).

(Figure 7.5a and b).[132] The late medieval penny was gilded prior to the attachment of the loop and collets because the gilt underlies the solder. The fact of the stones not being actual rubies need not concern us overly. In the twelfth and thirteenth century various kinds of gemstones were imitated in glass and used in jewellery among them a ring from the Larkhill (Worcester) hoard with a yellow glass insert and a silver ring from West Chinnock (Somerset) which included a green glass stone, presumably imitative of an emerald (PAS: SOMDOR-6AE873). Standley reports that found among royal jewels in France and England in the fourteenth century were coloured glass stones set as gems (Standley 2010: 145).

The unusual red-coloured glass recalls the rubies used in jewellery of the period. Rubies – known variously as rubies or baleys in surviving medieval lapidaries – were incorporated into dress accessories and served both ornamental and prophylactic purposes. Medieval lapidaries, such as that of Marbode, Bishop of Rennes (d. 1123), recorded the medicinal and magical properties of these precious and semi-precious stones (Glick *et al* 2005: 306). Four surviving English lapidaries confer virtues on the stones; of the ruby they say it brings honour and grace upon the wielder; beasts that drink water in which the ruby has been wetted are cured of sickness; it feeds the man and comforts the heart and body and wins lordship (Evans and Serjeantson 1933: 20). The balas-ruby (a type of spinel found in the *Balascia* region of Central Asia) makes a man glad and dwell in youth and truth; protects against pestilence and poison; guards against perils on voyages; keeps a man from idle thoughts, sorrow and great lechery; accords one with his enemies and keeps him safe from them and from storms (Evans and Serjeantson 1933: 28-9). The talismanic virtues of the ruby are further summarised in the fourteenth century treatise of Sir John Mandeville, who claimed that the owner will live in peace and concord with all men, that neither his land nor his rank will be taken from him, and that he will be preserved from all perils. The stone would also guard his house, his fruit-trees, and his vineyards from injury and tempests. All these positive effects were best secured if the ruby, whether in the form of a

[132] The Barking coin was originally housed in the Passmore Edwards Museum and seen by me only as a photograph in the files of Marion Archibald. It's current whereabouts is unknown. I am grateful to David Harpin for alerting me to the existence of the Lee penny.

ring, bracelet or brooch, and worn on the left side (Kunz 1913: 103) was set in gold (Evans and Serjeantson 1933: 123). The deep red colour was also said to signify blood and suffering, so the stone is considered symbolic of Christ's Passion and of martyrdom (Ferguson 1955: 53) and was also used in different traditions for checking the flow of blood (Kunz 1913: 28). The group of three could represent the Trinity, equally it could be an aesthetic device.

The lack of a known findspot makes it impossible to establish exactly who might have used this pendant and in what sort of context although the dating is mid-thirteenth century. What can be said however is that the gilding and ruby-like inserts combine to produce a pendant brimming with prophylactic associations. It must have been worn in hope that the virtues ascribed to the ruby would literally rub off on the wearer, and the level of wear suggests a lengthy time in use. It could equally have been a personal jewel worn against the body or as a rather more showy display piece. Less clear are the circumstances of its loss. The soldered attachment of the loop is a departure from the earlier practise of riveting and avoids the weakening of the structure of the coin. With the stones *in situ* and overall appearance still attractive it seems unlikely that this object would have been thrown away.

4. Edward I pendants from New Romney, Kent and Ditchling, Sussex

Interesting parallels can be drawn from two pendants using Edward I pennies which have been converted in different ways. The New Romney pendant (Figure 7.6a) was a metal detector find made in 2000 and acquired by the British Museum in 2001. The coin is a class 4b silver penny of Edward I minted in Canterbury (*c.*1283-86) with the obverse inscription +EDWRANGLDNSHYB around the facing crowned bust of the king. The reverse consists of a solid long cross over a beaded border which separates the inner angles, each containing three pellets, from the outer inscription CIVI TAS CAN TOR. The lack of visible wear and absence of any circumferential clipping puts the likely withdrawal from circulation of this coin within five to ten years of minting.

Three adaptive phases are visible, firstly, a silver suspension loop was soldered at the terminal of the reverse cross separating CIVI and TAS, next scarring on the surface clearly shows where five collets were soldered, one very slightly off-centre and one at each of the four terminal points of the cross. Finally, both coin and loop were gilded but the gilding is not visible under the collet scars nor has it been applied to the obverse side of the coin – so it is clear which side was meant for display.[133] The central collet may have held a larger insert than the terminal ones as the scar looks somewhat bigger than its fellows.

The absence of the collets and their stones leaves one guessing as to what form the inserts took. It seems reasonable to suggest that, like the Henry III example above (and two recent finds shown in Figure 7.6b), they were set with coloured glass, or perhaps even real gems, symbolising some prophylactic aspect of healing or devotion. The visual composition is reminiscent of later medieval jewellery embodying the Five Wounds of Christ by the placing of five gems, usually carbuncles, at the centre and terminals of a cross, similar to that on Sir Thomas Neville's memorial brass (Cherry 2001: 167-8). The five wounds were seen as protection against sudden death, often plague (Ettlinger 1939: 170).

The Ditchling example was found in 2008. It makes use of a class 9b1 silver penny of Edward I, minted in Canterbury in 1300. The large flan and slightly heavy Ditching coin could have been culled from currency very early on specifically for this purpose. The inscription is identical to the previous pendant but the conversion takes a more conservative form. At the terminal of the reverse cross, between the TAS and the CAN a silver loop has been soldered to allow the coin to be suspended. The orientation of the loop with the coins' reverse cross indicates that this was the side to be presented. The coin has been struck on a slightly oversized flan which may account for its selection, it may also have traces of gilding, but this is difficult to establish for certain merely from a visual appraisal.

[133] Two recent finds were notified to me after the submission of the thesis (Figure 7.6 b, c). An Edward I groat bearing collet scars in the same configuration, and a very similar piece purchased in 2012 (Harpin 2012: 208).

One aspect of these two objects to consider is that both have been manufactured using coins from the same Canterbury mint. In the late thirteenth-early fourteenth century (when these coins are likely to have been withdrawn from currency) the pilgrimage centre at Canterbury was at its height. Could it be that they were converted into pendants from coins specific to Canterbury and kept as souvenirs of a visit to Becket's shrine? The findspots are both within reach of Canterbury however, the spread of Canterbury coins on PAS (Map 7.1) indicates their general availability in currency over much of the country. This fact means that these pendants *could* have been manufactured in English towns where craftsmen were based but given the findspots and the clusters of Canterbury coins they are probably local products which happened to select Canterbury pennies as their basis by chance rather than design.

5. Gold ryal pendant of Edward IV

The only surviving example of a later medieval gold coin converted into jewellery is a ryal (or rose-noble) of Edward IV's light coinage (1464-70) in the British Museum collection (although its provenance is unknown) – at 42mm it is one of the largest English coins of the medieval period (Figure 7.7). The 1464-5 reform introduced the ryal at 10 shillings making this coin-pendant of some contemporary value. The obverse inscription reads +EDWARD DI GRA REX ANGLI Z FRANC DNS H and depicts the king standing full-length in a ship holding sword and shield. On the reverse is the inscription IPSE AVTEM TRANSIENS PER MEDIVM ILLORVM IBAT (But Jesus, passing through the midst of them, went His way: Luke iv. 30), this passage might have been used as a charm against the dangers of travel, particularly robbery (Tait 1986: 213; Hinton 2005: 247-8). The same inscription is known from a number of English, French and Italian rings and was claimed to make one invisible (Antoine 2005: 106). The particular significance of gold in this context is through gold coins being worn as protective amulets before battle from the reign of Edward III into the eighteenth century (Ettlinger 1939: 161). An alternative explanation comes from its use as an amulet in support of Edward IV during the Wars of the Roses. Coin-based designs on badges include those of Henry VI where the sacred royal presence seems to be invoked much like royal seals represented the physical presence of the king. The workmanship in

this transformation, particularly the gold banding, is more delicate than on previous examples and could only be the work of a skilled goldsmith. This fact limits the range of individuals who could have commissioned the piece. Silver was worn below the rank of knight in the later medieval period but in practice might not have been strictly adhered to (Cherry 1994: 13) and thus this gold object might have been worn in support of Edward IV's by one of his baronial adherents. The positioning of the loop at the base of the obverse of the coin suggests that the image of the king was to be viewed by the wearer rather than the observer, in other words upside down it could be raised to the mouth and kissed as an act of loyalty.

Pendants summary

This small sample of six pendants shows a varied range of adaptation and a lasting tradition of wearing coins as suspended forms of jewellery from the eleventh to fifteenth centuries. The Ware example, which uses an exotic coin type, includes the powerful Christian image of the Virgin, whereas after this date the image which proliferates is the cross and it seems that English coins come to dominate the types used. The Danish coin and the three English penny types all incorporate the reverse cross as integral to the design and elaborate it further with additional gilding and stones. Why the cross was so important in medieval life can be gauged by the power ascribed to it. 'The cross was the symbol of Christ's passion and death, the promise of future Judgement and Salvation, and was central to both public liturgy and private devotion' (Moreland 1999: 198). It was also viewed as a powerful weapon with which to defeat evil and so ensure social reproduction and the salvation of the soul (*Ibid*: 200) and at an earthly level invoking the cross was a defence against violent death or sudden harm (Saunders 1983: 146). The fact that such a powerful Christian symbol was present on the vast majority of locally available English coins would have made their incorporation into pendants desirable. The general availability of coinage which could be then be transformed in this way would also have played its part offering a cheap, ready-made base which could be elaborated by the goldsmiths craft with multiple layers of protective charms and/or devotional extras. Pendants were the jewellery item to which stones were most likely to be added and it is

often possible from the style of the loop to suggest how the image was seen by the wearer and if it was meant to be worn against the body. The fifteenth-century example shows that secular (albeit royal) figurative elements could be adopted in a similar way. By this period the use of coins in jewellery was on the wane (see below) and this object is an exceptional survival of a high status pendant with a clear royal affiliation.

7.1.2 Coin brooches/badges

The most common type of coin-jewellery is a chronologically tight group of coins predominantly dating to the second half of the eleventh century. They are referred to variously as 'nummular', coin or penny brooches (Biddle 1990: 634; Metcalf 1998: 85; Hinton 2005: 159).[134] Coins mounted in this way were fashionable from Carolingian times and were introduced from the Continent, some being made from real coins while others imitated coin design (Metcalf 1998: 85; Leahy 2006: 279). The thin reverse pins on surviving examples of badges (identified by three alternative forms of fitting) suggest that their use was decorative or symbolic rather than functional, and would be used to display the spiritual, political or social allegiances of the wearer (Williams 2001: 66-69; Lightbown 1992: 188). The number of reported examples has increased significantly in recent years, Metcalf knew of nine (1998: 85) while Williams listed 21 (2001; 2006),the combination of previous lists with new finds provides a corpus of 38 objects which are summarised in Figure 7.8.

The vogue for this type of transformation visibly peaked during the reign of Edward the Confessor with some overspill into the reign of William I, at a time when there were practically no other small dress items of precious metal (Hinton 2005: 166). Establishing when an individual transformation was made is limited by the fact that certain types of coin had a longer circulatory life than others. For example, an argument can be made for suggesting that the four coins of Cnut and Harthacnut were converted in the Confessor's reign, particularly given that his own coins only start being reused in this way with the

[134] 'Penny badge' is the preferred term used in this thesis. The nummular attribution has been used improperly and rather refers to brooches imitating stylistic or characteristic elements of coins as opposed to being fashioned from a coin.

Expanding Cross type (dated 1050-1053). Additionally, once converted from money into accessories their life span could be extended by a considerable number of years (Metcalf 1998: 85).

The examples tabulated in Figure 7.9 were struck at a range of mints and peak between the 1050s and the 1080s. The majority of specimens are gilded on the reverse only (68.4%). The fittings largely take the form of a pin and catchplate fixed to the coin, typically with two or four rivets. These can be silver or copper and there is a correlation between the copper fittings and the lack of gilding suggesting these were a cheaper alternative. Only four examples come from excavations and two of these may be pendants. Chapters 3 and 4 showed the relative likelihood of Phase A and B coins circulating into later periods to be minimal, strongly suggesting that these coin brooches were predominantly created within the reign of the issuer (Williams 2001: 67). The find spots and source of coin (where known) are displayed in Map 7.2.

Hinton (2005: 159) noted a bias of this type of find in the south of England, but these new data now show a larger and less densely packed group extending into East Anglia. The Wiltshire/Hampshire cluster may also be a result of the work of Robinson who was based in Devizes in Wiltshire and was known to be interested in such pieces, thus drawing in local finds when none were recorded elsewhere (see Robinson 1990). Regression analysis shows the distance travelled by an object from creation to deposition, for coins this means minting and eventual loss. The Hants./Wilts. group uses coins from a wide variety of mints despite the proximity of Winchester and the Wessex mints indicating coin choice was based on availability of good coin. Four penny badges from excavation work provide the only contextual data for any of the coin jewellery in this thesis – two of these are explored below.

1. Winchester composite coin badge (Ninth century pennies)

At Brook Street, Winchester a badge formed of two pennies – of Burgred of Mercia (852-874) and Eadmund of East Anglia (855-869) – was excavated from a stone and timber

house (house XII) (Biddle 1990: 634; *Idem* 2012: 611-2). The two pennies are joined together by six small rivets, of which two pairs affix the hinged pin and catchplate to the back of the badge (Figure 7.10). The reverse of the Burgred lunette-type penny showing the name of the moneyer Diga MONETA +DIGA is outward facing and gilded. A part of the obverse legend is visible on the second coin identifying it as of the martyred king Eadmund of East Anglia. The numismatists Dolley and Mays suggested the manufacture of this object would not have occurred much after the reign of Alfred the Great (post-899) (Biddle 1990: 633), but Leahy, from a technological viewpoint, sees it as a product of the eleventh century (2006: 272). The copper alloy pin and catchplate fittings are certainly remarkably similar to those found on the eleventh century material, and corroborative support for later manufacture comes from two sources: a Scandinavian imitation of the Aethelred II penny found in Kent but adapted in England (Archibald 1993: 149) and a coin of Edwig (955-9) from Andover Down, Hampshire whose also closely resemble the eleventh-century examples (*TAR* 2008: T457). The mid-late thirteenth century context lends further support to a later date for conversion and to Leahy's idea that the two ninth-century coins were objects 'found' in the eleventh century (Leahy 2006: 279). Another probable rediscovered object (or possibly an heirloom) was a penny of Burgred excavated from the twelfth-century grave of an adolescent girl at St Helen-on-the-Walls, York (Gilchrist and Sloane 2005: 101). Occasionally finds are made which show medieval people reusing antique material by manufacturing new tools or accessories such as the Roman antler tool from medieval Shapwick (Gerrard 2007) and one suspects this practice was far more widespread but remains under-reported in the archaeological record.

Why these coins were specifically adapted as jewellery is difficult to say. They could have been seen as being interesting or exotic objects and were certainly obsolete as currency by the eleventh century and may have been unfamiliar to the wearer. The antiquity of objects did sometimes lend them a magical quality (Gilchrist 2008: 144), and also significant could have been the place of finding within the community if, for example, this was a churchyard or other socially significant site. The coins are rather base in terms of the silver content and their value in the crucible was negligible. Unlike later coins they

bear no distinctive Christian motif in the form of a cross only the name of a moneyer. The power of words might have been a consideration in the choice of the reverse of the coin for outward display. Mercian and East Anglian coins are known to have circulated together. The Croydon (Whitehorse) hoard deposited in *c*.870 contained around 200 coins of Burgred and 11 of East Anglia (Thompson 1956: 39, no. 111), although no East Anglian coins were present in the Hampshire No. 1 (*c*.870) hoard. Despite this, a small hoard found in the eleventh-twelfth century could be the source of these two coins (and perhaps others which were dispersed in some other way) which were kept and made into a badge for good luck or a reminder of the past fortune of finding the coins.

This badge was found in an area of the city dominated by premises dedicated to the finishing of textiles, particularly fulling and weaving. By the eleventh century weaving in Winchester had declined in scale and largely moved to the suburbs. There is archaeological evidence from House XII to suggest it being used as a tannery in the eleventh century (Biddle 1990: 244) and documentary evidence that from the late thirteenth century the premises was owned by a fuller (*Ibid*: 208). This is supported by the presence of cobbled workshops and fire resistant hearths linked with the dyeing process. Perhaps the badge was once owned by the fuller and lost at his workplace.

2. Billingsgate, London (William I penny badge)

The Billingsgate lorry park site lies on the north bank of the Thames within what was the walled City of London. Excavation and a watching brief the site in 1982-3 produced evidence of commercial waterfront buildings and a church associated with a series of reclamation events from the twelfth century (Schofield and Maloney 1998: 177-9; 190-1). Unfortunately the site has not received full publication at the time of writing and is unlikely to do so now. Spoil from the watching brief was detected by the Society of Thames Mudlarks producing an impressive, if unstratified, corpus of Roman and medieval finds. The William I brooch described here falls into this category of material, lacking a specific context, although it does derive from one of the many episodes of land reclamation that took place along this stretch of river in the tenth-sixteenth centuries. The

detector finds are most likely to have come from a series of five revetted reclamation dumps (or associated foreshore accumulations) to the south of those excavated in 1982, all of which were of fourteenth-century date. Within the same area were remains of the west end of the fifteenth-century undercroft of St Botolph's Billingsgate (Schofield and Maloney 1998: 191). A similar find from Canterbury, it might be noted, came from a general layer in the area of the thirteenth-century rebuilt church of St Mary Bredin (Blockley *et al* 1995: 385)

This find is unlikely to be from a foreshore deposit as this area of the riverfront was reclaimed from the river by successive revetments, infilled with an assortment of domestic or other waste material sourced from within the city (Archibald *et al* 1995: 165; Schofield 2007). The coin used for this brooch is not an official product of an English mint from regular dies. It imitates a silver penny of William I's Profile/Cross Fleury type (BMC I, *c.*1066-68?) with the partially obscured obverse inscription [+P]ILLE[L]MVSR[EX]. The reverse inscription +PVLGARONLVDAO imitates the coins minted by the moneyer Wulfgar in London (Figure 7.11). Stylistically the first coin type of the reign closely followed that of Harold II, bearing a profile bust facing left with a sceptre in front though it is additionally draped. It has been suggested that this 'coin' was made unofficially for use as jewellery (Allen *pers. comm.*). The condition of the coin suggests that it was converted soon after minting as very little wear is apparent, however, coinage in this period was subject to regular restriking and as such each type had a relatively short circulatory life. The fact that this find was from the London mint is not surprising, London had the largest output of any mint at this period. The transformation of the coin into a badge was also likely to have been carried out in London where the goldsmiths were concentrated around Cheapside (Cherry 1992b: 11).

The attachment on the obverse face of the coin continues the style in vogue from *c.*1050 consisting of a hinged pin and catchplate in silver or base metal fixed to the coin, either by rivets or, as in this case, by soldering the two elements to the coin. The adapted coins show the technological transition from earlier riveting to later soldering in objects such as

this, a process fully completed by the late thirteenth century. Who owned and lost this badge is difficult to establish with certainty because of the nature of the waste material from which the revetment infill was sourced, being refuse from the City probably in the form of general waste, upcast from pits and clearance of areas for new building. Finds from similar waterfront sites tend to be dominated by material with a commercial purpose, the Vintry coin assemblage favoured halfpennies and farthings in quantities only comparable with sites such as markets but also suggested that the infill material was locally sourced and representative of the immediate area (Kelleher and Leins 2008: 181). In addition to St Botolph's church excavation revealed warehouses and domestic structures (Milne 2003: 25) so the badge's owner may have been a merchant linked to the river-borne trade of London, or perhaps a patron of the eleventh-twelfth century church.

Badges summary

The number and distribution of this type of coin adaption highlight a small but significant group of jewellery that flourished from the mid-eleventh century and continued in decreasing numbers into the twelfth – an era where metalwork of all types was relatively scarce (Egan 2009: 297). This was a result of a shrinking in the market for urban craftsmen and artisans after the Conquest which continued into the twelfth century (Hinton 2005: 172). Objects which can be classed specifically as badges are scarce in the early medieval period and these coin types could be some of the first examples of such an accessory. The earliest mass produced badges cited elsewhere are pewter from Le Puy in the Auvergne which date to 1185 (Lightbown 1992: 188). The coins of Cnut and Harthacnut adapted with pin and catchplate might be interpreted as adaptations made from slightly older coins which were still in circulation. If a goldsmith had a stock of coinage for use as silver then the age of the coin would not be an issue and he would not have needed to exchange such money for newly minted specie. The reverse cross would still be an acceptable visual element of the design. In the case of the coins of Burgred and Eadwig the evidence points to them being found in the eleventh century and made into badges at that time.

The finds focus on three main areas, Norfolk, Hampshire/Wiltshire and London when deposits of appropriate date survive. If there is an element of bias in the reporting of these finds then it may be explained by the Norfolk tradition of finds recording and the interest of Paul Robinson in Wiltshire, however, finds made since the PAS came into being generally support these focal areas. The distribution suggests that Winchester and perhaps Salisbury goldsmiths were responsible for the southern cluster with Norwich or Thetford for the Norfolk cluster. Cherry suggests that the presence of the royal treasury in Winchester until the twelfth century led to a concentration of goldsmiths there (Cherry 1992b:29). The range of mints represented in the Norfolk group is localised, with just one coin, from London, not from local mints. The southern group has a more eclectic mix with coins from the North, the Midlands, London and the West, perhaps reflecting a more economically active region with a varied circulating medium.

The question remains as to who wore these badges and why. An unlikely suggestion is that they may have been worn by servants/adherents of the moneyers (Leahy 2006: 281). If the majority of the finds were local to the mints this might make sense, but the reality is that the distribution of finds away from their mint place is too great for this to be a plausible explanation. The form the adaptation takes is fairly standardised but shows some difference in the overall expenditure involved in each piece. The non-gilt examples or those with copper attachments some level of aspiration to this type of product but with a less showy finish. It seems likely that only a very few below the ruling elite would have been in a position to purchase such an object. The merchant classes in the towns and perhaps the occasional country reeve seem best placed in this respect. Such an item would have been beyond the purse of a peasant. Henry I's famous nightmare in John of Worcester's *Chronicle* shows a peasant with a disc brooch or clasp, but rural sites rarely produce Saxo-Norman metal finds (let alone silver or gold) to suggest peasants owned such objects except in exceptional circumstances (Hinton 2005: 178).[135] They were probably worn as displays of piety or talismans (*Ibid*: 159), and considering the use of the gilt cross as key to the composition this seems likely.

[135] The village of Westbury (Bucks.) produced a buckle of this date.

7.1.3 Annular brooches

Annular brooches have become a growing component of the medieval metal detector finds reported through the PAS and Treasure Act in recent years. They are found in a variety of materials, from fine gold pieces down to base metal, and can be plain or decorated, incorporating both precious stones and inscriptions as part of the design. Their use is illustrated in twelfth and thirteenth century statuary and through manuscripts (Cherry 1969: 225; Deevy 1997: 77) where they are shown either to fasten two parts of clothing together at the neck, as a decorational ornament or, in the later Middle Ages, on the hat or head-dress (Lightbown 1992: 136; Egan and Pritchard 2002: 247). Both men and women made use of them; their popularity being attributed to their shape which is said to have conformed to the geometrical theory of beauty or the unbroken ring as a testimony of faith, at least among the twelfth century intellectual elite (Hinton 2005:190). Whether or not intellectual motives were at work in such jewellery they embodied many characteristics, among them the display of art and beauty, courtly love in the guise of heart-shaped ring brooches and love inscriptions, wealth and status through expenditure on precious metals and gems, concerns over chastity, religious belief in the form of devotional inscriptions and as written charms (Deevy 1997:73; 1998: 64-73; Hinton 2005:190-1).

A small group of four otherwise unpublished annular brooches which make use of medieval coins in their designs are discussed below. All are metal detector finds, three were reported through the Treasure Act in recent years (nos. 1, 2 and 4), the other is a 1980s find (no. 3). Chronologically the three earlier examples fit into the open frame category of annular brooch which have a separate, swivelling pin (Egan and Pritchard 2002: 247) although only one example actually retains this. The later object has no constriction or hole, suggesting its pin attachment took another form.

1. Covenham, Lincs. (Short Cross penny)

In 2006 an English Short Cross penny (1180-1247) was discovered by a metal detector user at Covenham, Lincolnshire. It had been transformed into a small annular brooch (Figure

7.12). Until recently this was the earliest known English coin adapted into this type of jewellery and dates to the reign of Henry III, specifically to class 7a1 (1217-18).[136] The mint signature of the coin shows it was struck in Durham under the moneyer Pieres. The Durham mint reopened 1218-c1220 under Bishop Richard Marsh (Allen 2003: 169). Pence of class 4a (1194-*c*.1200) were struck under two moneyers Adam and Alein but from class 4b (*c*.1200-1203/4) the moneyer 'Pires', then in classes 5, 6 and 7 'Pieres', is solely responsible for the Durham output. 7a1 coins of Durham have a distinctive rounded appearance with raised rims which Allen suggests was the result of the punching out of round coins from an angular flan (1979: 53). The surviving inscription reads on the obverse [+]HENRICVS REX and on the reverse +PIERE[S] ON DVR with the obverse cross and reverse S removed by the drilling of a hole about 2mm in diameter.

The central roundel of the coin, which would ordinarily show the bust of the king on the obverse and a short voided cross with quatrefoils in the angles on the reverse, has been neatly removed to leave the outer band with the legend. The small hole is placed for the attachment of a swivelling pin (now lost). The area opposite the small hole shows much greater levels of wear than the rest of the coin, indicating where the pointed end of the pin would have rested. Taking this line of enquiry further suggests two things. The first is that this level of wear points toward the object being used over some length of time. Secondly, if this wear is indicative of where the pin was used then the reverse must have been the side which faced the observer. Only occasionally do annular brooches incorporate a constriction and pin which allow a choice of side to be displayed (see Egan and Pritchard 2002: 250-1, nos. 1314 and 1318). Around a quarter of the reverse has what looks to be traces of gilding in the spaces between the lettering but this observation is unconfirmed by scientific analysis. When this coin was converted is difficult to establish precisely, it was certainly struck in 1218-*c*.1220 and could have remained in currency until 1247 when the new Long Cross type removed the majority of the Short Cross coins from circulation. The fabric of the coin shows some wear, consistent with it spending time

[136] The *TAR* entry mistakenly attributed this as class 5. A find discovered in after the writing of this chapter used a Flemish petit denier dated to the twelfth century (Figure 7.13).Two finds have recently come to light apparently made from class 5 Short Cross pennies, the earliest of these is a piece from the Rhuddlan mint of class iiic (*c*.1205-10) (Harpin 2012: 205-9, Figure 11).

passing from hand to hand. There is no reason why, as a decorative item, this object did not survive into the second half of the thirteenth century when perhaps the pin broke and it was discarded.

In appearance this example, and the two discussed below, most closely resemble annular open frame brooches with legends such as that found at Billingsgate Lorry Park which incorporates the magical inscription IЄSΛSNAZARENVS (Egan and Pritchard 2002: 255). The full inscription, as found on other brooches (e.g. Langford, Notts. Nenk 2004c: 98) and sepulchral monuments, reads *Jesus Nazarenus Rex Iudeorum* and was used as a general charm and one specifically against epilepsy (Evans 1922: 128-9).

A silver annular brooch from Old Kirk Field (County Durham) combines the abbreviation +IhЄSVS NΛ RЄ on one side with ΛVЄ MΛRIΛ GRΛ (*TAR* 2007: no. 278), the form of the pin itself indicates that when worn the Jesus inscription would have touched the body of the wearer so that the Mary side was on display. The Covenham brooch could be a stylistically similar, if illiterate, imitation of brooches like the Old Kirk Field example though the latter is dated *c*.1300-*c*.1400. An annular brooch found in South Gloucestershire also includes a nonsensical string of characters (*TAR* 2007: 130, no. 276) these were sometimes used on amulets to stop bleeding (Murray Jones 2007: 96), but the fact that they appeared to be words, real or not, is what probably gave inscribed objects their authority (Hinton 2005: 191). In the early thirteenth century a penny was an object more readily available and affordable than it had been at any point previously (Chapter 4). This theoretically broadens the range of people able to convert one into a brooch. Price lists appear for the first time in the thirteenth century and can provide a rough guide as to the relative value of money. The wage for threshing a quarter of barley in 1259 was 1 penny, in 1261 a dozen pigeons cost 2 pence (Rogers 1866: 304; 356). The added expense of conversion would probably still have brought this brooch within the range of only the wealthier villagers.

2. Wymondham, Norfolk (gilt-Bergamese grosso)

In 2007 a thirteenth-century Italian coin, adapted into an annular brooch, was discovered by a metal detectorist in fields at Wymondham (Norfolk), a village nine miles south-west of Norwich. The coin brooch was declared Treasure in 2008 and acquired by Norwich Castle Museum (Figure 7.14). The coin is a silver *grosso* minted in the northern Italian city of Bergamo in the name of the Emperor Frederick II, as king of Sicily (r. 1198–1250). Italian coins are generally uncommon finds in the UK beyond two incursions of Venetian soldini which plagued the currency in the fifteenth century (Spufford 1963; Daubney 2009; Chapter 6). Prior to these, and especially in the twelfth and thirteenth centuries, Italian coins are rare. Just three examples, two from Sicily and one from Piacenza (all found in East Anglia) were recorded in 1999 (Cook 1999a: 271, nos. 91, 92, 95) and to this can be added a *grosso* of Rimini recently found in Lincolnshire (PAS: LIN-E95731). The *grosso* used for the Wymondham brooch is of a coin type which did not circulate in English currency, and at around 22mm and 2.07g the coin is somewhat larger than contemporary English pennies of Henry III (18mm). When complete the obverse should depict the right facing bust of the emperor laureate, draped and cuirassed in the Roman style with the legend FREDERI CVS IMPPT in the field. The reverse is almost filled with a stylised image of the city, in two columns to either side is the inscription PGA MVM.

The transformation of this coin beyond an object of currency appears to have been carried out in two phases, which are potentially at a remove from one another, hinting at several 'lives' of the coin. The lack of visible wear on the surface of the coin suggests removal from circulation within *c*.10 years of striking. A central roundel, around 9mm in diameter, has been removed from the coin and a second smaller hole, less than 2mm wide, has been cut in the circumference about 1mm from the internal void. Both sides of the coin have been gilded and the absence of any gilt residue on the internally cut surface of the coin strongly suggests that in its first 'post-currency life', the coin had been whole and gilded on both sides, and that only at a later time was the coin transformed into a brooch. Gilded coins sometimes occur as English finds but have yet to be satisfactorily explained. They are often gilded on both sides suggesting that they were never intended for a brooch, so it could be that they were some form of offering, or intended to deceive as fraudulent gold

coins. The obverse design of this coin almost identically imitates the gold *augustales* of Frederick. Later in its life the coin had the two holes cut to form an annular brooch: the levels of wear suggest that it was the reverse that faced outward. Norwich seems an obvious hub for exotic material like this to have come to, perhaps via one of the ports on the north Norfolk coast, such as King's Lynn. Further research into the presence of Italian merchants in the region might prove fruitful.

3. Caistor-on-the-Wolds, Lincolnshire (Long Cross penny)

This find was reported to Dr Kevin Leahy of the North Lincolnshire Museum in the 1980s and its identification is based on a photograph of the find generously provided by Dr Leahy.[137] The coin from which this brooch has been made is a silver penny of Henry III's Long Cross coinage (current 1247-1279) struck in London under the moneyer Henri (Figure 7.15). Due to the absence of the bust it is only possible to identify the coin as class 3 (1248-50). The obverse inscription reads HЄNRICVS RЄX III and the reverse HЄN RIO NLV NDЄ divided by the arms of the voided long cross.

This example is the only one with a surviving pin. The pin is a tapering pointed length of what looks like copper alloy. It is attached to the body of the brooch through the hole pierced just inside what would have been the internal border. This acted as a guide to remove the central roundel, so that the pin is situated over one of the arms of the reverse cross. The position of the pin indicates that the reverse faced outward. The photo precludes further detailed study of the coins fabric and condition. This brooch follows on from the Short Cross and Bergamese examples above and indicates how the complete object would have looked. Caistor lies on the edge of the Lincolnshire Wolds about 15km from the Humber estuary on the route from Grimsby to Lincoln. Given that the brooch is complete it might have been lost accidentally rather than discarded.

[137] In recent times this brooch has been traced to the collection of David Harpin.

4. Penllyn, Vale of Glamorgan, Wales (Henry VI groat)

This enigmatic find was made in 2007. The coin is a groat of Henry VI's rosette-mascle coinage (late 1420s-early 1430s), minted in Calais and shows significant circumferential loss that is consistent with coins that were clipped down to match the new, lighter groats issued from 1464/5 (Figure 7.16). The clipping has taken the coin almost down to the edge of the inner inscription (21mm diameter), removing *c.*4mm of the obverse legend +HЄNRIC DI GRA REX ANGL Z FRANC and the reverse legend +POSVI DЄVMA DIVTOR ЄMЄVM ('I have made God my helper': *Psalm* 54 alluding to David's betrayal by the people of Ziph). The inner reverse inscription VIL LA CALI SIЄ remains. The conversion must have taken place after 1464 and almost certainly before the debasement of the coinage in 1526 drove any remaining good silver out of circulation. The coin has been broken into two pieces in antiquity with the smaller part showing evidence of corrosion, perhaps where an iron pin has rusted.

The form this conversion takes is rather crude. A central circle has been removed from the coin completely removing the king's head but not his crown. In both earlier English annular examples the cutting has followed the band or design of the coin, but this removal is 2mm inside the dotted border on the reverse. There is also no evidence for where a pin would have been placed although from a similar find seen at the British Museum has been postulated (Archibald *pers. comm.*). Given the Welsh provenance of the find it may be significant that the head of the king has been removed.

Annular brooch summary

The small size of the sample makes any wide-ranging interpretation unwise but at least allows a glimpse of the place of annular brooches within the wider context of medieval jewellery. The material divides into two easy groups by time and space. From a wider European perspective this type of transformation is local to England and the Baltic. Among the coins in the Ducker in Bunge hoard found in Gotland, Sweden (deposited after 1529) were two annular coin brooches made with coins struck for the Teutonic Order grand masters Winrich von Kniprode (1351-82) and Michael Küchmeister von Sternberg (1414-

22) (Grinder-Hansen 1997: 370). In the Baltic therefore such objects were known. The central roundels on the Ducker coins had not been removed to the limit of the border – as is the case with the thirteenth-century English coins. Both have their pins intact, in each case a single tapered length of copper-alloy looped at the thick end through a small rectangular hole in the coin and soldered back on itself. Another hoard from Pritzwalk in Germany deposited in the late fourteenth century included a converted gros of Philip IV (Krabath and Lambacher 2006). Dating adapted coins, particularly those devoid of any archaeological context, can be problematic due to their exemption from the conventions of normal currency, but three of our group are certainly adaptions of the thirteenth century when annular brooches were at their most popular (Deevy 1997: 73). The deposition date of 1529 for the Ducker hoard coins opens up the potential for a lengthy life for coin brooches, with each having survived between 107-178 or more years before their deposition, even if by then they had become bullion as opposed to jewellery. The fourth example is crude and, although very likely, cannot definitely be called an annular brooch. Coins adapted in a similar way have sometimes been put to unusual uses. In an obscure example from Poland a hoard of dirhams had been used to mark the harnesses of sheep, in another modern hoard the coins had been reused as washers for the roofing of a house (Suchodolski 1996: 319). In the Welsh case the removal of the central part of the coin appears to be a careful act unlike those pierced centrally which are discussed below.

7.1.4 Dress hooks

Surprisingly little has been written on dress hooks despite them being the second largest of the converted coin groups after the eleventh-twelfth century coin badges. The only real synthesis of this object type is in a note by Cook where they are termed coin-brooches (Cook 2008b: 236), here ‘dress hook’ is preferred as the reverse fittings are unlike those of a brooch (Figure 7.17). There are 33 dress hooks in the corpus, manufactured from a range of coins; English pennies (12.1%), groats (48.5%) and groat-sized Continental coins (39.4%). All the specimens are made from coins struck between 1266 and 1317. These are set out in the Figure 7.18.

As a sample the group is heavily biased by the inclusion of the Edward I groats, these coins are extremely sought after and have thus been collected and published to form as complete a record of this coin type as possible (Allen 2004a). The large foreign coins however, are not collector's pieces and have not come to publication so readily. Without any deposition dates for the dress hooks the date of adaption takes on an important role. Edward I's groats were produced between 1279-1281, contemporary with the class 1-3g pennies (North 1991; Allen 2004a). The Dover hoard, perhaps deposited during the French attack on Dover in 1295 (Allen 2004a: 29), is the only certain hoard known with groats in it and suggests that they performed a minor role in currency into the mid-1290s at least (Dolley 1955a: 150). Dating the Continental coins is more problematic as their date ranges are not as tightly fixed as the English coins, in addition there are questions about the level and chronology of their circulation in England (if indeed they did at all). The known finds suggest a focus on mercantile areas with only a few found in rural areas (Cook 1999a: 254-5). Two English hoards from Dover (Kent) and Mayfield (Sussex) contain gros (Dolley 1955a; Archibald 1971). The Louis IX gros are the earliest but they could easily have been in circulation into the later thirteenth century as they are reported as being used in France as amulets of the sanctified king into the seventeenth century (Cook 2008b: 239). The gros of Luxemburg and Saint-Pol push the manufacture date into the early years of the fourteenth century (Cook 2008: 239). Bearing these facts in mind the overwhelming likelihood is that the Continental pieces were singled out for adaption when groats were becoming more scarce. Thirteen converted continental coins are known against just eight as unconverted finds (Cook 1999a: 273-5).

Just two of the converted groats have provenance, one find from Norfolk and the other from Chichester. The pennies show the most varied distribution coming from Deal (Kent), Kingstone (Herefs.) and Urchfont (Wilts.) with just the Little Ryburgh example coming from Norfolk (Map 7.4). The continental types number eight; five are Norfolk finds, from Wendling, North Walsham, Watton, Holme and Wickmere with the remaining three from London, Meonstoke (Hants.) and Paull (E. Yorks.). The apparent Norfolk bias is compelling and deserves further attention. Norfolk has a long history of metal detecting and the high

numbers of Norfolk finds could be a proportionate representation from a greater sample of finds which is not reflected in the PAS. However, current recording levels in Norfolk are similar to other counties, for example Suffolk and Leicestershire, which do not seem to be producing proportionate numbers.

How these objects functioned as dress accessories is still open to discussion with numismatic reporting often mistaking the reverse fixtures as some form of pin and catchplate (Cook 2008b: 236; Marsden 2007: 127). The coins are actually made up of either a single bar, looped at one end and hooked at the other, or have the loop and hook separately affixed. In all cases the attachments are soldered. In most cases (80.6%) the coin is gilded on one or both sides, with the face of the coin bearing the cross positioned for display. The pennies match the method of adaptation of the larger coins.[138] The size could plausibly have reflected the size of the garment to which it was attached perhaps suggesting the pennies were more commonly worn by women or children.

Dress-hook summary

The known dress hooks are mainly found in Norfolk although some other finds do make their way to the Humber and the south coast. This suggests a regional fashion, centred on Norwich or Thetford, which developed after the appearance of the groat and grew to incorporate Continental coins once the groats disappeared. Of all the jewellery types the dress hooks have a more permanent character by virtue of the requirement for them to be sewn onto a garment, rather than being pinned or worn. Unlike the other forms of jewellery the wearing of the dress hooks was dictated by the clothing they were sewn on to, restricting the contexts in which they could be seen and experienced.

7.1.5 Finger-rings

The vogue for finger-rings was a feature of late twelfth-fourteenth century jewellery (Hinton 2005: 213) and like other forms of medieval jewellery, they were often worn for their protective or curative powers as well as to display wealth and status. They were

[138] A recent find from Thorney (Notts.) used a demi-gros of Marguerite of Constantinople with a figure of a galloping horseman for its design.

employed to prevent illness, disease, misfortune or to heal and could be inscribed or set with a variety of images or materials to ensure their efficacy (Cherry 2001: 168). As dress accessories rings also straddled the social divide, they were as much at home on the fingers of high-born princes and clerics as on the humbler digits of the peasantry – although the material resemblance would be limited to the form. London excavations have shown that a wide variety of humble, base-metal forms of ring were produced in imitation of elite prototypes (Egan and Pritchard 2002: 325).

The portability of rings and their intrinsic expense saw them often hoarded with coins. The post-Conquest hoards from Soberton (Hants.) and Sutton (Cambs.) for example included two and five gold rings respectively (Thompson 1956: 125; 131). The Lark Hill (Worcs.) hoard buried sometime in the mid-1170s comprised over 235 coins along with seven silver rings (Archibald 1984: 290-1). Two other hoards of Henry IIs *Cross-and-Crosslets* coinage (1158-80) included silver rings – three from Bramham Moor (Leeds) and one from Brackley (Worcs; Allen 2002: 46-7). In the Short Cross phase two Warwickshire hoards from Cross on the Hill, and Filongley contained a gold and a silver ring respectively (Palmer and Seaby 1983-4; Wise 1999). In the Long Cross period the Cambridge (Dolphin Inn) hoard had at least five gold rings (Allen 2002: 53-4). There follows a gap of around 150 years until the next hoards, from Huntingdon (Cheshire, two silver rings), Thame (Oxon.; five gold rings), the famous Fishpool hoard (Notts.; four gold rings), Holbrook (Suffolk; four silver rings, Allen 2002: 71-4), 'South Warkwickshire' (deposited *c.*1520 with a silver-gilt ring 2003: 110), and Stoke Holy Cross (Norfolk; two gold rings, Ashley *et al* 2004: 110). The association between coin and ring was therefore made in these contexts, it is interesting to speculate whether any of these hoards were the belongings of jewellers that were never recovered or, as is more likely, stores of portable wealth.

Two later medieval rings incorporating coins have been located for this thesis. They are particularly rare and in both cases only the coin remains. Roman coins were sometimes set in rings in the Roman period as shown by five British gold finds (Bland and Loriot 2010: 96, 102-3).

1. Peterborough Double Inscription ring

A single example of a silver penny, formerly mounted in a ring, published in the J.P. Mack collection, was recovered from ballast from Peterborough (Figure 7.19). The coin is of the rare Double Inscription type of Henry I, minted *c*.1115 in Norwich by the moneyer Etstan. The coin itself is of a particularly unique style in English medieval coinage, having as its reverse design two concentric circles, the outer containing the inscription +E*TS*TA*NO* and the inner +NNORPI around a small cross rather than the usual single-line legend around a central larger cross. Archibald attributes the stylistic origins to eleventh century coins of Adalbero III of Luxemburg, bishop of Metz (Archibald 1984: 332; Dannenberg 1876: pl. 2, nos. 37-9). Three sides of the coin appear to show compression damage consistent with mounting, while traces of damage on the obverse point to the double inscription as being the side intended for show.

Since only the coin survives nothing is known about the ring into which it was mounted. The Double Inscription type has an interesting composition of features on the reverse which could have made it an attractive choice for a jeweller. Not only is there the obligatory small central cross with its Christian connotations, but dividing the outer band of the legend are four roundels containing quatrefoils; the juxtaposition of the central cross-roundel with the four radiating quatrefoil-roundels creates a flat visual setting not unlike the later coin-derived pendants which bear five collets in the form of a cross (see the New Romney pendant described above) which are themselves reminiscent of contemporary brooches. The configuration of the five cruciform roundels finds parallels at the end of the Middle Ages in jewels, often carbuncles, placed to represent the five wounds of Christ which were thought to have healing qualities, a depiction of Sir Thomas Nevell shows such a cross with the five wounds as jewels (Ferguson 1955: 53; Cherry 2001: 164-168).

Finger-rings of the period often had some healing purpose. The famous fifteenth-century Coventry ring combines a number of apotropaic features including the Christ of pity, the five Wounds, an interior inscription, the three kings and two charm words (Cherry 2001:

169). Whether the inscription carried meanings associated with the power of the written or inscribed word, as is a possibility in the annular coin-brooches, is unknown. We may speculate on the choice of a comparative rarity of coin type – it seems almost certain that the specific configuration of the reverse design led to its incorporation in this piece of jewellery, and as seems to be the case elsewhere, the image of the monarch was not regarded as special or significant. From the existing evidence it is difficult to establish who might have owned the ring. What one can say is that when mounted the ring would have had a diameter in excess of 21mm, suggesting a male wearer as most likely. When mounted this would bear a passing resemblance to a seal or signet ring which were used to validate documents and therefore underlined the status and prestige of the wearer.

2. Congham Virgin and Child bezel

A photograph in the Archibald archive supplies only the second ring-mounted coin in this thesis. This unusual metal-detector find was made in 1989 in Congham, Norfolk and reported to the British Museum for identification. Congham lies in north-west Norfolk 10km west of Kings Lynn. The coin is silver and has been folded equally over on three sides to form a triangular bezel which has then been gilded (Figure 7.20). This would probably then have been set in a now lost ring. Triangular bezels are rare but not unknown in ring design; a recent example is the gold specimen from Narborough, Norfolk (Ashley 2001: 62). The religious scene places it in the 'iconographic' category of rings which first appeared in the late fourteenth century and became common in the fifteenth century (Cherry 1991a: 40). The facing side of the coin depicts the Virgin Mary holding the infant Christ set in a *mandorla* – the almond-shaped framework usually reserved for Christ or, on certain occasions such as the Assumption, the Virgin Mary (Ferguson 1955: 268). The legible inscription on the folded edges reads S. MARIA in the Lombardic script popular on European coins. The other side of the coin is obscured by the three folded edges. The identity of this coin is problematic although it is certainly from the Continent and looks, stylistically, to be of fourteenth or fifteenth century date. The Virgin and Child is an image found on coins of Hungary, Pisa, Basel, Valence and Die and Bavaria but this specimen has

yet to be positively identified to type. It is most likely to be a coin of the Hungarian king Matthius Corvinus (1458-90).

The Virgin was a hugely popular image on devotional jewels, and particularly on rings which were mass produced in gold, silver and base metal. A gold and enamel ring from the grave of Bishop Grandisson at Exeter Cathedral bears a bezel with an image of the Virgin and Child, in an Italian style adopted on French rings (Alexander and Binski 1987: 482; Cherry 1991b: 206). A gold example from Brailes, Warwickshire depicts a crude figure of the Virgin and Child (Robinson 2001: 65), from Broadlands, Hampshire came a silver ring with an image of the Virgin and another figure (Nenk 2004a: 108), the Virgin and the Angel of the Annunciation appear on the ring from Old Romney, Kent (Nenk 2004b: 108) and from Thornbury, Gloucestershire came an example with the crudely engraved images of St John the Baptist, the Virgin and Mary Magdalene (Adams and Robinson 2006: 118). It is into this wider tradition that the Congham bezel must be set. A gold ducat of Matthius Corvinus was found on the banks of Helford Estuary (Cornwall) (Cook 1999a: 277; *SCMB* Nov 1961: 430) but no silver coins are known at the present time. The important port of King's Lynn is the best candidate for the influx of exotica such as the coin used here.

Rings summary

The dataset for this class of object is, perhaps, surprisingly small considering the popularity of rings in the later medieval period. Over the past fifteen years PAS hasrecorded over 700 finger rings of the period as well as 277 precious metal rings through the Treasure Act (2000-2007). The simple fact remains that rings created out of coins were not particularly elegant and quality rings with stones, inscriptions and decoration could be produced without resorting to numismatic iconography. English coinage was, in any case, limited in its range of designs and clearly the reverse cross was more suited to badges or brooches than finger rings. Rings themselves were symbolically powerful and exuded status unlike other forms of jewellery. Kings and ecclesiastics are known to have worn rings and they were also given as gifts (Cherry 1994: 10). Why these two coins, separated by almost 400 years, were incorporated into rings seems to be a

product of their specific visual characteristics combined with contemporary fashions in jewellery design.

Coin jewellery: Conclusion

The strength, and paradoxically the weakness, of the majority of this material lies in its origins as metal detector finds. Its strength is its relatively recent discovery from fields all over the country and the fact that as a previously untapped source it can greatly expand on understandings of the geographical distribution of finds. It is weak however in providing contextual validity coming, as it does, from unstratified ploughsoil. Key to this chapter has been the integration of the less contextualised, but more prolific, PAS finds, with the less numerous, but stratified, archaeological finds. The distribution of finds (Map 7.5) shows some clustering; one is centred on Norfolk with outliers in the Fens and into Suffolk; the other concentrates on Winchester and spreads into Wiltshire. The latter group is dominated by the badges whereas dress hooks are more prolific in Norfolk, suggesting possible regional traditions. Most of the annular brooches are found in Norfolk and Lincolnshire with a single chronologically and stylistically abberant example from South Wales. Finds in the South East are mostly coastal or from towns on the major rivers. There are yet no finds north of the Humber estuary.

An analysis of the proportions of coin jewellery against the overall numbers of coins recovered reveals certain trends (Figure 7.21). The PI difference is most striking, ten coin jewels of this period are known against 40 non-converted coins (the smallest period in terms of coins) displaying the biggest margin of difference. Figures for PII-IV show a small number of jewels against the slowly appreciating volume of coins in general. In PV the number of jewels is at a low level despite this period witnessing a real boom in the availability of coinage (Chapter 4). Jewel numbers rise in PVI but PVII shows a huge increase (in the form of dress hooks) out of all proportion to anything seen earlier. This increase is in line with the greater availability of coins in PVII more generally. Periods VIII-X see few conversions as the number of coins struck in these periods diminishes. However, as we have seen in Chapter 5 larger denominations in silver and gold were produced at

this time and one conversion – a gold noble of Edward IV – represents the only known example in this metal. A further question is the relative level of coin jewellery set against other forms of jewellery. The question is not easy to answer but a rough idea can be gauged from figures in the *Treasure Annual Report* which should include all gold or silver jewellery found in a particular year. In 2007 58 jewellery items were recorded against three converted coins (*c*.5%), implying that coin conversion was a small but not-insignificant mode of adornment.

The coin jewellery examined in this thesis reveals for the first time a consistent, if sporadic, tradition of transforming coins from their economic role to a social one. The use of a coin in this way also reinforces the power of wealth and the status of the wearer because it demonstrates their ability to change money into jewellery. For many medieval peasants such a use would have seemed profligate, especially when we consider how much money a peasant would have typically handled (Dyer 1997). The initial impetus for penny badges grew in the reign of Edward the Confessor, peaking around 1050-60 and continued in diminishing numbers up to the twelfth century. At the same time imported coin-pendants appeared, arriving from Scandinavia. There are many more examples of Anglo-Saxon pendants not covered in this thesis that lie outside its date range but the imports are effectively the end of that particular phase and probably linked to the realignment of English contacts with France over Scandinavia in the aftermath of the Conquest. A small number of twelfth and thirteenth century pennies transformed into annular brooches have come from Norfolk and Lincolnshire with an Italian coin seemingly incorporated into this regional tradition. Pendants with soldered loops appear again in the thirteenth century and among all the jewellery types best embody elements of personal significance to the wearer. The variety of styles suggests they weren't responses to fashion but commissioned on the basis of personal devotion – be it to the Virgin (as in the Ware example), to Christianity more generally (Ditchling) or the king (gold noble pendant). This is also the only jewellery type which incorporates stones set as part of its design – a clear signifier of the protective power imbued in the object.

The large group of dress hooks appear, seemingly, in direct response to the first issue of English groats under Edward I, with pennies, and, when the groats ceased, Continental gros and demi-gros used in lieu suggesting the fashion had gained popularity even beyond the issue period of the coins. This type of adaption had ceased by about 1330. In future this group is that most likely to expand in number as, until now, little synthesis has been carried out on them and previously unrecorded finds appear as metal-detector finds and in sales fairly regularly. After *c.*1340 there are just three objects, the gold noble pendant, the Welsh find of a probable annular brooch and an enigmatic Venetian soldino with an elaborate rose mount. The move away from adapting coins in this way could be seen as a response to changes in fashion or the wider availability of alternative and more affordable or desirable accessories. However legal concerns may also have obtained. Sumptuary laws were a social mechanism for the visible recognition and maintenance of rank (Hinton 1993: 328). Legislation of 1363 decreed that craftsmen and yeomen were forbidden from wearing, among other things, buttons and brooches of gold or silver, but such laws appear to have been widely disregarded (Deevy 1997: 76; Cherry 2003: 327). Just three examples in this thesis postdate the mid-fourteenth century so if coin jewellery was largely eliminated by processes such as this then one could possibly suggest that the coin jewellery which we know of was commissioned for and worn by medieval people of the lower ranks.

The workmanship in this group of objects as a whole could only be that of skilled goldsmiths who would have had premises in major towns in the country. We have seen earlier that Winchester had a number of goldsmiths in the eleventh century, but it was London that boasted the greatest concentration in England, centred on Cheapside near St Paul's. In 1368 there were 135 members of the London Company of Goldsmiths and by 1465 there were over 400 masters alone (Cherry 1992b: 11-12).

7.2 Mutilation I: Bent or folded coins

The bending of coins has hardly been mentioned in the numismatic literature although historians and archaeologists have drawn attention to particular examples as part of wider

studies of magic or religion and the use of material culture. This is primarily a consequence of the aims of numismatics as a discipline, which tends not to focus scholarship on the life of coins as anthropomorphic objects, an approach familiar to the archaeologist when dealing with 'things', but rather the production, circulation and consumption of coinage within its issuing state and beyond.[139] However, interpretations derived from a holistic approach to the biographies of coins (specifically bent or folded coins in this example) can have important implications for numismatic study. Merrifield's *Archaeology of Ritual and Magic* (1987) gave the first published archaeological perspective on the phenomenon of folding coins in the medieval period. His study was based on documentary evidence and a limited corpus of material from which to make interpretations. The numbers of finds within the PAS dataset which show evidence of having been bent or folded exceed 130, and these, added to the handful of finds known at the time of Merrifield's work and those since discovered in excavations combine to make a re-evaluation particularly timely.

Historical evidence

Much of the evidence for coin-bending is derived from compilations of miracle records. The relationship between the laity and the saints when it came to miracle working can be seen as a contract; the supplicant required miraculous healing, while the saint required honour and devotion from his client, above all in the form of pilgrimage to his shrine (Duffy 1992: 183). This relationship was most often made manifest in an object, usually a silver coin, bent specifically for the purpose. Other secular objects, such as mirrors, could absorb and later dispense radiated sanctity when used in particular ways at pilgrim sites (Hinton 2005: 211). The act of bending coins seems to be an important part of the ritual, echoing earlier examples of the 'killing' of objects from the prehistoric, Roman and early medieval past (such as the breaking or bending of emblems of authority as part of the funeral rite. Grinsell 1961: 478), but also contains within it some notion of a contract between the would-be pilgrim and the saint (Duffy 1992: 184). It is made clear that the

[139] Although work on the practice of 'pecking' in the Anglo-Saxon period has received some attention (see below).

actual coin bent at the time of invocation was the one to be presented at the shrine (Finucane 1977: 94; Spencer 1978: 248).

Surviving examples show that very often an invocation was performed on behalf of a third party, such as the father who bent a penny over his daughter's chronically injured foot and vowed to visit Thomas Cantilupe's shrine at Hereford (Finucane 1977: 94). In London in July 1499 the body of a girl drowned in the Thames was brought back to life after her father bent a penny over her forehead and made a vow to Henry VI; the girl came back to life and a week later the family set out for Windsor to give thanks for the miracle (Spencer 1978: 243). William Child whose son had 'died' was revived after William bent a penny and measured the boy (for a candle) and made his vow to Simon de Montfort (Finucane 1977: 115). We find that such methods of intercession were often used in combination as the papal commission into the canonisation of Thomas Cantilupe of Hereford in 1307 shows. One of Thomas' ascribed virtues was in bringing the dead back to life. The commissioners heard testimony that Lady Mary Briouze bent a silver penny over the body of a hanged criminal named William Cragh 'according to the English custom' and measured him for a candle dedicated to Thomas. Miraculously William recovered and in his own testimony confessed to bending a penny to the honour of St Thomas which he managed to keep with him even on the gallows (Bartlett 2004: 9, 28). The point to be made is that these vows were made in the understanding that these people had died – whether or not they would be considered dead by a physician today.

It was not only those requiring healing who resorted to this form of thaumatugical rite, an example is recorded aboard a ship during a storm, in which the crew called out various saint's names, but it was only when one man bent a coin in the name of Saint Wulfstan saying 'I vow myself and this penny to my lord Saint Wulfstan' and the others followed suit that the storm passed (Finucane 1977: 94). Pennies were bent to cure a horse of blindness, for the health of Edward I's hawks and chargers each year and even to stop the spreading of a fire (*Ibid*: 94). Examples seem to fall into three categories:

- A saint is invoked and a vow made to visit the shrine and to present the coin there
- A coin is bent over a sick person or animal while the saint is invoked
- The coin is bent at a time of danger to avert some catastrophe

Most of the references to coin bending specify that the coin should be a penny, the PAS data however shows far greater range of coins bent, from the small silver denominations up to gold coins. Various factors would have militated against what was used in the invocation, not least the availability and affordability of coins to the user. In some circumstances it may also be the case that no small denomination was readily available and one was forced into using something larger, as in the example of a wealthy fifteenth century penitent who vowed a coin to Henry VI but was unable to find a silver coin in his purse, where he bent a gold one instead (Duffy 1992: 183). However, gold coins were not common amongst the vast majority of the population; the smallest denomination, the quarter noble, was worth 20 pence, a huge sum for a peasant who would never have been in a position to offer such a coin. Contrast this with the small silver coins offered, and one sees that participants might range from all levels in society. The very poorest, for whom coin was not a regular feature of their lives, may have made their vows by different means, perhaps using pewter tokens or jettons or quite possibly in some less permanent material which has not survived the archaeological record.

The evidence of finds

The survival of bent coins in the archaeological record is contingent upon various factors. Finds deposited as pilgrim vows at shrines are only likely to reach us if they were lost or stolen before the normal process was completed (see Kelleher 2011: 1497 for this interpretation of the Wicklewood hoard). Merrifield cites a few examples recovered from excavations at religious sites; a Stephen penny from Glastonbury Tor (Rahtz 1971), a Scottish penny at Jarrow (Cramp *et al* 2006) and a German sterling at Battle Abbey found near the chapter house among dissolution-period debris (Archibald 1985: 178). Merrifield explains their escape from the melting pot as a result of their dubious metal but these coins were not of such inferior alloy as he suggests, and the Scottish coins of William the

Lion circulated in some quantities in England, especially in the north, without discrimination.

Before proceeding with a discussion of the folded coins data a number of points need to be made regarding its completeness. The thirteen counties where the author assessed every online record can be said to have complete coverage, whereby if a record had an attached image and the coin showed bending this has been noted. The exception is Norfolk; this county had an existing, pre-PAS method of recording which was not changed when the PAS employed a Norfolk-based FLO. Norfolk records recorded in Norfolk were therefore transferred to the PAS database as a spreadsheet without images and do not conform to the PAS field criteria. Any information on the condition of the coins is therefore unavailable. The PAS finds are mapped out in Map 7.5. All finds that show some evidence of deliberate folding or bending are included, regardless of the extent.

Finds have been made at different types of sites; from the Thameside Billingsgate lorry park site came an interesting pair of Henry I pennies folded one over the other (Merrifield 1987: 109), this find is relevant to the debate on the deposition of artefacts in watery places, which in the medieval period is most obviously characterised by the placing of leaden pilgrim badges (often bent) at major river crossings and riversides, a tradition with its roots in medieval superstition and folk memory (Spencer 1990: 11). Another group of folded coins came from Grendon (Northants) in which a whole penny of Stephen had been folded over and crimped to hold two cut halfpennies and one cut farthing (Blackburn 2001: 352-3). A Henry III Long Cross penny from Church Langley, Essex adds to finds from religious sites (Medlycott 2000). Urban finds include the Short Cross penny of Henry III found on the floor of a thirteenth century building overlying the bailey ditch of the castle at Doncaster (Buckland and Magilton 1989: 92), from the rural site at Kilverstone a folded imitation sterling came from field boundaries associated with the deserted settlement there (Garrow *et al*: 206). The first aisled hall building at the medieval moated manor at Chalgrove (Oxon.) produced a folded Scottish penny in the construction material of an internal stone feature (Page *et al* 2005: 77-8). This object may have been inserted as a

form of foundation deposit. Its folded condition suggests that it may well have been purposely placed rather than being dropped accidentally. The coin-rich metal detected market site at Llanfaes (Anglesey) produced 16 coins described as folded, from Stephen to Edward I (Besly 1995: 62-79); one, a Scottish Alexander III penny, contained traces of textile in the fold which raises interesting possibilities as to its purpose. It is very likely the textile belonged to the afflicted as a means of suspension.

The coming together of the folding act and the coin as object is revealed elsewhere in a small group of medieval finds which either comprise multiple coins folded together, coins folded multiple times or coins folded within other materials or containing other materials within the fold. Multiple folded coins have occasionally been found two Henry I pennies were folded together from the Thames (Merrifield 1987: 109); one twelfth to thirteenth century example, where one Short Cross cut halfpenny was folded around another cut halfpenny, came from East Walton (Norfolk, Marsden 2006: 211); from Finchley (London) came an Edward I farthing in a folded penny; a find from 'Alby area' (Norfolk) was a fragment of a gilt-silver forgery of a gold angel of Edward IV, the fragment had been folded over on two axes (Darch 2006: 106); a Spanish coin from Dodcott Cum Wilkesley (Cheshire) was pierced and then folded on two axes leaving a hollow space in the centre which may have contained some long-perished organic material like the folded silver-gilt groat of Henry VII recently discovered at Fulford (North Yorkshire). Surviving within the fold was a fragment of textile, which might be the remnant of a means of suspending the coin around a persons neck, or binding in to an afflicted part of the body. A similar find to this came from Llanfaes where a Scottish penny of Alexander III was found with linen fibres in the fold (Besly 1995: 59). An alternative take on the folding act comes from Pontefract (W. Yorks.) (SWYOR-6FA7C6; SWYOR-6FBCB0), where a cut-halfpenny was found close to a small lead sheet in which the coin had been folded.

Folded coins in later medieval graves are rare. Two examples come from the eastern cemetery of the priory of St James, Bristol, and at St Giles Cathedral, Edinburgh. The Bristol example is a twelfth-thirteenth century burial of a mature adult male with two

folded Short Cross pennies, one positioned at each shoulder and an associated jet pendant (Gilchrist and Sloane 2005: 100; Gilchrist 2008: 134). The Edinburgh burial was a juvenile with a single folded Scottish coin also accompanied by a pendant (Gilchrist 2008: 134).

Numismatists will often explain a bent coin as having been 'tested' for its genuineness (North 1994: 42). Other than those associated with pecking discussed above this is not borne out by the evidence, either historical or practical, for several reasons. For the period discussed here fraudulent coins most often consist of a base metal core with a silver or tin wash, and folding would not necessarily reveal this. In eleventh century English and German coins there is a wealth of evidence for the 'pecking' of coins as a means of testing their integrity; the surface of the coins was pricked with the tip of a knife (Hammarberg *et al* 1989: 13). In the reign of Henry I there was much concern about the state of a coinage which had lost public confidence, the Anglo-Saxon Chronicle reports that 'the penny was so bad that the man who had at market a pound could by no means buy therewith twelve pennyworths' (North 1994: 43). The solution employed by mints was to snick the edge of each coin before it was issued and thus allow the user to see the part of the cross section and thus evaluate the integrity of the coin, some type 6 and all types 7-12 show this treatment. Further evidence refuting the testing hypothesis comes from other folded objects from the Thames. At Swan Lane three folded base metal tokens dated to around the thirteenth century were recovered, as well as some more ornately bent examples, strongly suggesting that the folding action was not done to test the metal – these tokens had no intrinsic value – but was a votive act. In the seventeenth-eighteenth century Highlands the bending of bronze or iron pins thrown into holy wells was considered a charm for success or health (Gazin-Schwartz 2001: 270). Also in the seventeenth century 'love tokens' were made by bending two silver sixpences together and the courting couple keeping one each. This signals an interesting post-Reformation shift in dedication of a vow from a saint to living human (Standley 2010: 195).

Folded coins summary

The overriding concept in coin-folding is one of a transaction involving in the removal of one 'earthly' thing for the acquisition, or at least hope of acquiring, some 'heavenly' benefit, with the transaction incorporating a ritualised semi-destructive act. As has been noted this tradition has a long history and is not unique to the medieval period. It is by no means certain that the folded coins in the corpus were all pilgrim-vowed objects that failed to arrive at the ascribed shrine. Documentary evidence for the bending of pennies for the health of animals or the avoidance of other misfortunes points towards the possibility that coins were offered for reasons not specified by the records and in places other than at a church, often archaeology is the sole source of evidence for the existence of particular rites such as grave goods placed in medieval Christian graves (Gilchrist and Sloane 2005: 160). It is known that food and other offerings, such as mutilated ampullae, were made in the fields to ensure a good harvest (Anderson 2010: 198), could folded pennies have been an extra incentive in such practices? (Suchodolski 1996). The folding act effectively made a coin taboo for circulation and would have forced potential finders think twice about removing and using them.

The dataset reveals that coins were folded in elaborate ways that demonstrate a development on the idea of pilgrim vows towards similar ideas seen elsewhere in the folding of jettons and pilgrim badges. The evidence of multiple coins folded together, multiple folds on a single coin and the unique example of a coin folded within a lead sheet all suggest motives for folding that cannot be explained as small stores of scrap silver, more deliberate processes were at work. In at least two cases remains of textiles point to folded coins being worn or suspended. Elsewhere, it is possible to speculate about the individuals and contexts in which coins were folded. In the case from Bristol the folding was enacted as a component of the funerary rite, the two coins being placed at the shoulders of the dead man, as well as the inclusion of a jet pendant. The preparation of a lay corpse for burial, the washing of the body and sewing into a shroud, was primarily a role carried out by women (Gilchrist and Sloane 2005: 23) and as such the placement of the objects in this case could be interpreted as a female act.

7.3 Mutilation II: Pierced coins

There are 98 pierced coins among the PAS material and these have been supplemented here with a further 14 from other sources (Table 7.4). Despite 'holed' coins being a feature of a significant proportion of numismatic material including museum collections and sales catalogues the phenomenon has rarely been discussed. This is the first analysis of the significance of pierced coins from the later medieval period. The material has been divided into three groups based on the nature of the piercing of the coin. The largest group are those with a hole positioned somewhere on the outer circumference of the coin strongly indicative of its conversion into an object for suspension, to wear on a cord around the neck, and as will be argued below, redeployed as a form of amulet. The chronological spread of this group in particular is interesting, with a significant bias in favour of coins of PX (1464-1544), proportionately one of the less numerous in terms of the total numbers of coins. This bias is undetectable if one were to look at the non-PAS finds as a sample. Period VII contributes nine coins with the other periods having five or less. It was impossible to assign 22 coins to a single period.

The functions played by a coin irrevocably changed once it is pierced. In some cases the act of drilling a hole through a coin was in itself a physical indicator that the coin was no longer allowed to perform its role as currency. Chinese 'cash' coins were famously minted with a central square hole in a round coin meant to represent heaven and earth although it also served a practical purpose in allowing the coin to be held in position when filed after casting and allowed strings of coins to be threaded together in batches of 100 or 1,000 (Eagleton and Williams 2007: 141). The first official sanction forcing the holing of coins came in the thirteenth century. John's assize of 1205 included a partial recoinage which was enacted to remove underweight clipped coin. Sheriffs were instructed to either confiscate or bore through offending money (Cook 2001a: 61). The hoard evidence (1066-1544) is devoid of pierced coins. However, the Bedale (Yorks.) hoard of the English Civil War does show that in rare cases pierced coins could revert to their original purpose (at least as a nominal bullion object, reminiscent of the practise in ninth century Viking hoards of hack silver and coins).

Thus, a level of caution must be exercised in interpreting coins with holes in them. Not only were there various methods for piercing for suspension, but coins could also be pierced in order to make them obsolete or illegal to use in currency. This section examines medieval pierced coins from the perspective of the motives behind the piercing or in some cases multiple piercings – be they as objects of display, amulets, illegal coins. Ninety coins have been pierced circumferentially, strongly suggesting life as a suspended form of decoration, twelve have been pierced centrally indicating some form of demonetisation and nine have multiple holes suggesting alternative uses. Each of these will be discussed below.

7.3.1. Amulets

The dictionary definition for an amulet reads *'Anything worn about the person as a charm or preventive against evil, mischief, disease, witchcraft, etc.'* (OED online). Coins with a single hole near to the edge of the coin are overwhelmingly likely to have been worn on a cord around the neck. The wearing of objects for amuletic purposes would take the form of a small object credited with some inherent power (Ettlinger 1939: 149-150). Amulets, by their nature, were protective devices but were sometimes used by medical practitioners as a valuable part of the healers toolkit. An example, prescribed by the Canon of Avicenna for the obstruction of the airway, recommended taking a coloured silk thread that has been used to strangle a snake and winding it around the patients throat (Murray Jones 2007: 95). Coins were an ideal object for similar adaption, being widely available. Almost all coin series have examples which have been pierced. Stones were often pierced for wearing into the later Middle Ages and were credited with magical or prophylactic properties (Lightbown 1992: 206); coins also seem to have fulfilled some of the functions of these objects.

Anglo-Saxon graves are well known as producing Roman or even Iron Age coins that were worn around the neck of the interred individual – a clear case of old objects reused in this way. It is now possible to extend this practise into the later medieval period. Two fourth

century pierced Roman coins were found in sealed late twelfth-early thirteenth century domestic contexts at Shapwick (Somerset, Gerrard 2007: 169) and suggest that a large body of Roman coins deposited in the medieval period remain underrepresented. Medieval graves containing Roman coins were excavated at the Cluniac Nunnery at Gorefield (Bucks.) and St Mary Spital, (London, Gilchrist and Sloane 2005: 79; 101), while a ninth century styca came from an eleventh century grave at Wharram (Gilchrist 2008: 143); these examples echo the belief that old coins had special healing properties (Gilchrist 2008: 141; Gazin-Schwarz 2001: 272). Little work has been carried out on later medieval pierced coins despite a significant number of them being known, the Mass collection of Short Cross coins for example contained 1% pierced coins within a collection which would avoid damaged coins if at all possible (Mass 2001).

A variety of sources and denominations are in the corpus. The majority of coins used are English and of the smaller denominations and are set out in Figures 7.19 and 7.20. The PI (1066-1100 coins consist of two pennies of William I one excavated at Cirencester Abbey has a large crude cracked hole in the centre (Wilkinson and McWhirr 1998: 71) and an unusual find from St Augustine's Abbey, Canterbury of a copper *follaro* of the Norman duke of Apulia Robert Guiscard (dated 1076/7) (Sherlock and Woods 1988). Copper coins like this one, minted in Salerno, had no obvious purpose in a monometallic English currency which consisted of silver pennies. Its appearance and loss in Canterbury was likely the result of it being brought there as a pendant from southern Italy at the end of the eleventh century. The choice of coin furthers the argument for a religious purpose for this object; the obverse bears the head of Christ between Alpha and Omega (Grierson 1956: 423) and it was probably left as a token of the visit by a pious Norman. The next find comes in PIV (1158-1180) and is a cross-and-crosslets penny of Henry II excavated from a twelfth century cesspit among other domestic refuse in Southampton (Platt and Coleman-Smith 1975: 317-8). In PV (1180-1247) four Short Cross coins are known, one (a cut halfpenny) was excavated from the floor of a thirteenth century building overlying the bailey ditch of the castle at Doncaster (Buckland and Magilton 1989: 92). Just one PVI (1247-1279) penny is known. PVII (1279-1531) makes a larger contribution with six English pennies and one halfpenny, two Irish halfpennies, a continental sterling of William of

Namur and a Venetian *grosso*. In terms of English finds the grosso is unusual, however the depiction of Christ enthroned on the obverse and St Mark passing a banner to the Doge on the reverse doubtless made it an attractive object for conversion into a personal devotional amulet, even if the piercing manages to go through the heads of both Christ and St Mark.

PVIII (1351-1412) and IX (1412-1464) follow along the same lines as VII with two pennies and one halfpenny and three pennies, two halfgroats and an Irish penny respectively (one PIX penny was excavated from a rubbish pit near the north transept of St Augustine's Abbey). Coins not allocated to a specific period but within the bracket of VII to X include 20 pennies, six halfpennies and a farthing. In PX both the number of examples and the breadth of denominations increases significantly with groats and a gold coin used for the first time despite both having been in circulation for over 100 years. The English coins include five groats, four halfgroats, 16 pennies, two halfpennies and a gold angel, while other European examples (17%) comprise an Irish penny, two Burgundian double patards, three Venetian soldini and one each from Navarre, Portugal and Barcelona. A group of the English pennies is notable. Henry VII's coinage reforms of 1489 included a new penny design with an obverse depicting the king enthroned which was also issued under Henry VIII. This was a simplified version of the gold sovereign design and recalls the imagery on the sovereign pennies of Edward the Confessor and the gold pennies of Henry III (North 1991: 17). Ten of the PX (1464-1544) coins are sovereign pennies and form the largest single individual type in the period. Why these came to be used over the other types of coin available is probably a direct result of the seated figure of the king which is reminiscent of the seated Christ.

An excavated sovereign penny came from Baconsthorpe Castle, Norfolk which in addition to its piercing had also been gilded, unfortunately the only contextual information which survives is the label 'Baconsthorpe' (Dallas and Sherlock 2002: 67) so little further can be said concerning deposition date and therefore when the fashion for such amulets was most common. However we can posit that a retainer at, or visitor to, the castle wore this

coin as an amulet and went to the trouble of having it gilded, thereby increasing its personal value.

The pierced gold angel from Thurlaston (Leics.) is of great interest. It dates from the reign of Henry VII and will be argued as an early candidate for what later became known as touch pieces. Scrofula (a condition associated with tuberculosis) was a prevalent disease in medieval England and France but one for which the king was thought to have miraculous ability to heal by his touch (Woolf 1979: 100). The tradition of healing by the king's touch goes back at least to tenth century France but the particularisation of the rite to scrofula and the introduction of the giving of a coin as alms to sufferers appears in England at the end of the thirteenth century, by which time the piece of money had become central to the rite (Bloch 1973: 21, 56; Farquhar 1921-2: 44). The sum of money given to the sufferer was a penny, only later, probably under Edward IV, was the sum increased to a gold angel (6s 8d). Farquhar argues that the rise in value of the ceremonial coin was a ploy by Edward IV to draw in sufferers to receive the royal touch in order to verify him as an authentic monarch (Farquhar 1921-2). She further mistakenly asserts that the coin itself was minted to be used in this way and cites the evidence of later monarchs who, while debasing the rest of the coinage, left the angel at its full standard. There is even the possibility that Henry VIII's angels were minted with an extra annulet as a guide as to where to pierce the coin for suspension. The ceremony itself became formalised under Henry VII and it is from this reign that the first pirced examples are known. An angel with a small hole is noted in the Bodleian Collection, Oxford and interpreted as a touchpiece (Farquhar 1921-2: 49) and the find from Thurlaston appears to be another of these royal healing gifts which somehow ended up in the Leicestershire countryside.

7.3.2. Demonetisation?

There are 12 coins with single holes pierced roughly centrally. They are present in Periods I (1), V (2), VII (2), VIII (3), VIII-IX (1), IX (1), X (2) and are all English other than a Portuguese cietil of Alfonso X from PX, which may have been pierced to accentuate its invalidity in currency. The most likely reason to pierce a coin centrally is to render it unusable as

intrusive foreign coins were damaging to the reputation of the currency as well as to profits at the mint (Cook 2001a: 51). As mentioned earlier underweight Short Cross coins were legislated against and were to be holed as a warning that they were not to be used. Of the two relevant coins in the corpus one is of decent weight while the other has no recorded weight. However there remains the tradition of ceremonially killing objects by punching a hole through them. Roman vessels found near graves are an example of such practice (Grinsell 1961: 478).

7.3.3. Multiple piercings

In nine cases more than one hole is visible on the coin. There is no uniformity in this group suggesting that each example was different. The holes on the Richmond-upon-Thames William I example are positioned in a similar way to those on the coin badges, while the Lyminster (West Sussex) Edwardian penny has three holes that look equidistantly placed although the third has not been fully pierced through. Several of the others appear to be rough, knife-shaped incisions suggesting they were tested for authenticity.

7.4 Conclusion

In this chapter I have sought to evaluate the ways in which coins were physically transformed and attempted to bring elements of the object biographical approach to bear on selected objects. The 1999 volume of *World Archaeology* 'The Cultural Biography of Objects' (Gosden and Marshall 1999) remains the key source in mapping out various approaches to object biographies. Later medieval subject matter featured sparingly, the two examples dealing with the medieval phase of two non-portable objects, Avebury megalith No. 4 and the Bradbourne cross in Derbyshire (Gillings and Pollard 1999; Moreland 1999). Key to both these biographical templates is the notion that the perception of time and attitudes to the past maintained strong resonances on how the objects were perceived and treated throughout their lives. Portable medieval material culture was not approached in any of the papers and has rarely done so. Gerrard discusses a Roman antler rake reused and deliberately broken in the medieval period which came from a twelfth-thirteenth century medieval pit at Shapwick (Somerset, Gerrard 2007: 166-

74). Several important points are raised; what antique or 'found' objects are considered suitable for reuse and which are not? Can the circumstances of medieval deposition (associated material; breakage or damage) add to the biography? The biographical approach with its *social life of objects* agenda was a response to the use-life approach which examined the *manufactured life* of an object, particularly useful for prehistoric flaked stone tools and objects with little contextual evidence. It was perceived as weak in its lack of social relationships (Gosden and Marshall 1999), but Joy has shown that both the use-life and biographical approaches can be combined in the pursuit of single object narratives in his study of the Portesham Mirror (Joy 2009).

Such social approaches alone are insufficient when dealing with finds with limited context and so it has been useful to explore the technological changes wrought on the coins to enhance the stories of the groups of finds overall. Each of the three main groups identified (jewellery, folded, pierced) consisted of around a hundred objects making them comparable datasets despite the bias in recording such objects. Coin jewellery, for example, is covered by legislation compelling finders to report under the Treasure Act, while folded and pierced coins are reported only voluntarily through the PAS. The PAS (and Treasure) material includes vastly superior numbers of objects than are known archaeologically and for this reason are a vital source of new knowledge. The material spreads known phenomena, such as folding, to a national level where before it was thought to be confined to religious and river findspots. It has also introduced some new types of object and helped generate numbers which enable a better understanding of the development of different types of coin adaptation. Figure 7.21 plots the three types of transformation against one another. Folded and pierced coins show a parallel pattern to the overall numbers of coins lost by period until the pierced coins in PX shoot up to extreme levels, a clear indicator that wearing coins in this simple style was a popular act between 1464-1544. The jewellery objects follow a different pattern dictated by particular phases of popularity in coin badges (*c*.1050-1090) and dress hooks (1279-1330) in particular.

A second area of theoretical study which may inform the reuse question is that of deliberate object breakage. Post-processual archaeologists and in particular prehistorians realised the potential of the biographical approach to object interpretation, especially those objects which display evidence of a final act of destruction or 'killing' prior to deposition (Merrifield 1987: 30). Chapman (2000) has taken the theme to a new level with his study of the Balkan Neolithic and Copper Ages. He posits that enchained social relations were embodied in objects through the act of breakage and dispersal of the pieces. A wide variety of ceramic objects have been treated in a way to suggest that different groups and contexts shared social links through such dispersal of the parts of a once whole thing (but see criticism in Bogucki 2002: 584). Historic-period archaeologists have been slower to engage with material culture in this way despite a small but informative corpus of medieval objects which appear to follow similar patterns of breaking before deposition (for Seals see Cherry 2002; Pilgrim badges, Spencer 1998; ampullae, Anderson 2010; a more general overview Chapman 2000: 37-9).

In medieval archaeology fragmentation *per se* is not entirely applicable although some of the concepts, particularly of the breaking of objects and the distribution of the parts, are in evidence. A good example of this is the breaking of medieval royal silver seals (principally an act to avoid fraud) in which the pieces were distributed, in the thirteenth century, as alms to the poor. Over time the practice developed to endow royal officials of increasing seniority with the fragments (Cherry 1992a: 23; 2002: 84). The silver was often reused to make new objects, as in the example of the seals of Richard of Bury, bishop of Durham whose seal fragments were offered at the shrine of St Cuthbert and made into a chalice used at the altar of St John (*Ibid*: 24; *Idem* 2002). Cherry suggests that some copper alloy seals were specifically discarded in rivers (*Ibid*: 25). The symbolic breaking of the staffs of office of the Lord Treasurer and Lord Steward occurred at the funeral of Henry VII where they were cast into the vault with the corpse (Cherry 1992a: 25) a practise that is recorded in France.

The lack of archaeological context for PAS material limits how far biographical approaches can be taken and thus there has been a heavier reliance on the excavated finds. This is problematic for the annular brooch, dress hook and ring types as none are excavation finds and highlights the important contribution, in terms of otherwise 'invisible' classes of object, that the PAS material can make. Most of the material covered here can largely be ascribed to people of lower rank in later medieval England; no meaningful assessment of direct ownership (as in high-status examples such as the Middleham ring attributed to Ralph Neville. Cherry 1994: 14) has proved possible. What one can say is that members of medieval society engaged in different ways of empowerment by taking steps to protect themselves from harm in the amuletic tradition (using a coin as the focus of the adaptation) or to seek miraculous healing by transacting with a saint through the payment of a folded penny. The pendants show the greatest diversity in style hinting at their personal nature. The coin badges are an important type of visual adornment from an era where jewellery is not common. Annular coin-brooches are a small addition to the true annular frame brooches of the thirteenth century and represent the first reaction, in terms of jewellery, to the wider availability of coins. Like the annulars the dress hooks are mostly metal detected and it is this group that will grow as finders become aware of their importance. The proportions of groats to Continental coins will shift in this process in favour of the foreign coins and should help to establish if majority of the coins came into the country via direct trade between the East Anglia coast and the Low Countries or via Kent and London.

An interesting adjunct, made visible by its absence, is the fact that there are no examples where the bust of the king has been obviously mutilated, neither have any coins been scratched or inscribed with other devices. In Viking Age Scandinavia Islamic dirhams were sometimes scratched with Thor's hammer or Christian crosses as an act of disassociation from Islamic doctrine (Mikkelsen 1998: 48-9) but no such 'personalisation' seems to have occurred in the English medieval world. Adapted coins provide an interesting source material. Marshall identifies objects as either 'inscribed', that is invested with meaning and significance during the process of manufacture, or 'lived', which are everyday objects

which have gained significance through social action (Marshall 2008: 63-5). Lived objects are more difficult to identify archaeologically especially in the case of casual finds as context is key (Joy 2009: 545) however the physical conversion of coins discussed in this chapter marks a significant step forward in the subject.

The reasoning behind each of the three main types of coin transformation can be summed up in Bloch's quote on the medieval view of sacred power. "*Sacred actions, objects and individuals were thought of not only as reservoirs of powers available beyond this present life, but also as sources of energy capable of exerting an immediate influence on this earth too"* (Bloch 1973: 42).

CHAPTER EIGHT

CONCLUSIONS

Medieval coins have historically been peripheral to wider archaeological scholarship and the research presented in this thesis represents one of the first attempts to approach coin finds from an explicitly archaeological methodology as well as demonstrating its interdisciplinary value for numismatic, economic and demographic studies. One of the aims of this thesis was to apply broader archaeological approaches concerning material culture to medieval coin evidence. The principal method of achieving this aim was to interrogate a previously untapped source of artefactual evidence – namely the *c.*18,000 medieval coin records available on the PAS database, as well as records of pre-1180 coins recorded on EMC, the extant hoard record and a selection of excavated assemblages. The assembled data was then subjected to a set of chronological and typological analyses and a rigorous complement of spatial analyses using GIS software. This approach was novel for the medieval period and although other scholars have utilised similar methods in Roman and Iron Age studies (Walton 2012; Leins 2012) such approaches are in their infancy. As the first serious attempt to analyse such a huge subject area this thesis has begun the debate and it is left to future scholarship to pursue some of the themes identified here at the regional and local level. Indeed there are several theses-worth of additional work barely touched upon in the previous chapters with the potential to impact significantly upon a broad range of subject areas. Additionally, by approaching the dataset from the dual perspectives of circulation in monetary terms as well as the re-use of coins it was possible to offer a previously absent insight into how medieval people viewed and used coins. The following sections contextualise some of the key findings of this thesis.

8.1 Managing bias in numismatic datasets

The assembled dataset of largely provenanced medieval coins derived from the PAS was augmented by data from other sources. The EMC provided an additional 2337 coins dated 1066-1180 (Chapters 3 and 4) while the hoard record and excavated material added a significant quantity of contextual data as well as ensuring that geographical areas not fully

represented by metal-detector finds were represented in some way – particularly urban centres like London, York and Canterbury and rural sites within inaccessible zones such as National Parks (such as Dartmoor), Ministry of Defence Land (Salisbury Plain) and scheduled ancient monuments. As a research tool the PAS provides unparalleled opportunities but is subject to questions of bias in terms of accuracy of identification and fullness of records. Extensive 'cleaning' of data was necessary to bring the records up to the standards required for analysis,[140] however plotting the revised data at the macro-scale has generated a set of GIS maps which establish the importance of coins as markers of the development and spread of monetisation and commercialisation in England and Wales in the medieval period. The inaccurate or limited competence of identification of PAS medieval coins is an issue that is particularly problematic and for the sake of future serious research requires remedy. A weakness of the current crop of PhD research projects using PAS material is the lack of a mechanism for transferring the researcher's enhanced data back into the PAS system (Leins 2012: 298). In the spreadsheets created for this thesis are several thousand records that have been amended and enhanced well above the level of detail on the PAS. Without incorporating the outcomes of such research back into the system the scheme runs the risk of subsequent scholars having to repeat the same process of re-identification.

The issues in the EMC data are different. Each record has been created by a specialist so the database provides a superior source for students in this regard. Where it is weaker is in the low-resolution grid references, which are limited to four figures and the lack of a mechanism allowing students to download data from source. The dataset provided to me in spreadsheet form required several days' work just to fill in more than the most basic information from each online record. The hoard record proved to be useful in several ways but is extremely limited in others. This is mostly an issue of publication as old hoards were rarely recorded in detail or were discovered prior to the development of the classification systems in use today. Some hoards from more recent times await publication

[140] The main issues of identification concern the broad date ranges provided by FLOs, particularly with the silver pence and smaller denominations from the reign of Edward I onward. The dataset is thus potentially weakened by having a number of finds which straddle the period divisions devised here and are thus 'invisible' in the general distribution maps and charts.

as their authors often wait to accumulate a large number of chronologically viable examples to bring to print as a group. The emergence of the *Treasure Annual Report* series has made a significant difference to the reporting of hoards and is a vital source for studies such as this one.

As a relatively new source for scholarship metal detector finds have rightfully been approached with some scepticism. The primary concern relates to whether the patterns we observe in the artefactual data are the product of modern recovery, rather than historical patterns. However, recent work by Bevan (2012) and Robbins (2011) have served to assuage some of these fears and laid down a set of robust methods that 'not only grapple with the inevitable issues of sample bias, but also go beyond such problems to achieve traction on more interesting questions relating to human behaviour in the past' (Bevan 2012: 493). The value of Bevan's work is that his case studies focus on PAS and EMC data and on coinage inventories in particular. Bevan shows that by comparing artefact distributions with contemporary regional demography and using spatial methods that recovery bias, rather than being a weakness, can be a potential strength (2012: 494). One issue highlighted in this thesis was the preponderance of single finds in East Anglia which has historically been attributed to the long pedigree of recording and high levels of metal detector activity. However, comparisons between coin-find data and estimates of population and distribution of wealth (see 8.4 below) show quite clearly that Norfolk, Suffolk and Lincolnshire were the counties with the highest levels of wealth in almost all assessments from Domesday to the lay subsidies and poll tax. It is salient then that Bevan's analysis of PAS and covariate datasets paints a broadly similar picture leading him to suggest that the proliferation of PAS finds in the south and east of England were the result of the 'demographic impact of proximity to the European mainland and the latter's metal wealth' (Bevan 2012: 496). Bevan shows a clear global association between Domesday population and Norman coin finds which helps to validate much of the distributional mapping in this thesis. In his analysis of Iron Age coins plots fall off curves for gold and silver coins from a central point revealing the different ways that coins in these two metals circulated. This sort of approach may prove of some value in future

medieval research in looking at single finds (once the corpus is sufficiently large) and hoard patterns after 1344.

8.2 Monetisation, commercialisation and the 'money economy'

This thesis has shown the value of ambitious, large-scale approaches to substantial geo-referenced digital medieval coin datasets. The data was divided chronologically into ten periods which were placed within a broader scheme of phases based on current understandings of production and circulation regimes. The data were then mapped according to different criteria. This allowed the changing pattern of coin use and patterns of monetisation, in so far as these are reflected in coin loss, to be identified. An aim of this thesis was to use coin find evidence to observe and interpret the changing levels of monetisation in England and Wales over the study period. To 'monetise', as defined in the *Oxford English Dictionary*, is 'to convert to the use of money; to convert (an economy) to a monetary system'. This definition is misleading for the medieval period and highlights two critical assumptions for placing this work within the broader discipline of monetary history. The first is the idea of *replacement*, in that money, in the form of coinage, was introduced to supplant a pre-existing system of exchange at a point in time. The second problem is the assumed permanence and extent of the shift to a monetised economy. It has been demonstrated that the development of a coin-using public, to an extent which is visible in the archaeological record was not a phenomenon which occurred across an entire regional or local economy. Neither did it necessarily represent a permanent shift to this medium of exchange although evidence from the later medieval period, such as the Paston letters, suggests that in the mind of people small denominations were a requirement in the monetisation at the regional level and for daily transaction (Cook, *pers. comm.*). The find evidence clearly demonstrates that the move to monetisation was predicated upon several conditions, not least the availability of sufficient coinage to make its greater use viable. Visible in the distribution maps are unmistakable fluctuations in the relative level of coin finds through time, no doubt the result of interlinking variables such as money supply, wages, population levels and, not least, the development of a gold coinage after 1344.

The introduction of a gold coinage permanently shifted the balance of the English currency. It coincided with the shrinkage of the silver coinage and thus in certain contexts compensated for this loss, at least for stores of wealth and the sort of high-level dealings required by the elites and merchant classes. However this also resulted in much of the national currency supply being too large to be practical in daily transactions. Indeed in 1301-2 a farthing could buy around a pound of bread or a quarter to half a pound of butter, six eggs or perhaps five pints of ale (Britnell 2004b: 24), highlights the relative inflexibility of even the small silver coins, let alone specie in gold. A further consequence of the minting of high-value gold coins was that much of the currency was being hoarded, functioning solely as a store of wealth and unavailable to the general circulating pool. The very few gold coins occurring as finds testify to this circumstance, which would have undoubtedly impacted upon the velocity of circulation of the silver coinage.

Fundamentally, however, the standard definition of monetisation fails to reflect the gradual development of a coin or money-using constituency, implying instead that at one set point in time one thing (money, in the form of coins) replaced a pre-existing system. This thesis has demonstrated significant coin-use particularly in eastern parts of the country and in towns over the study period and especially from *c*.1200-1360, and that the rural communities and areas further north and west slowly adopted coinage in the period before the Black Death. It is only by gradual degrees that monetisation took hold from the Conquest to the mid-fourteenth century, and this was contingent upon a complex set of interchangeable variables which were the result of both international and regional dynamics.

Interestingly, numismatists have avoided offering explicit definitions of 'monetisation', instead drawing on the work of economic historians. The idea of monetisation, insofar as coin finds can be used as evidence, is a broad and often complex one and is bound up with arguments about the emergence of a money economy and the commercialisation of society (Bolton 1995; 2004; Britnell 1995; 2004a; 2004b). According to Britnell, monetisation, evident in the increase in coins in circulation between 1158 and 1319, is

one of the three indices of commercialisation (1995: 7; 2004a: 76). Does the use of coins, evidenced by the spread of single finds, constitute what we can term a money economy? Jim Bolton has warned of the dangers of assuming that a 'money economy' emerged in tandem with the use of coins and that a convergence of circumstances was required for this to occur. For example, he cites the need for a steadily growing population which stimulated demand for land, goods and services as essential components in this development alongside other stimuli such as advancements in law and legislation, the emergence of markets and fairs and the growth of the urban population. Also vital was the increase in the availability and use of money (Bolton 2004: 4-5; 2012: 22-3). Bolton's argument hinges on a preoccupation with a 'money economy' being achieved only by the ticking off of a list of preconditions and an overestimation of the role of credit and banking which the evidence cannot, at present, support. The idea that all of Bolton's variables were required for coin-use and a money economy to flourish is not borne out by the single find data.

Estimates of the money supply, most notably recent work by Allen (see 8.3 below) have demonstrated a clear explosion in output in the Short Cross period (PV) but in particular the period after *c*.1200. The single-find evidence shows, for the first time and at a national level, the adoption of coin-use on an unprecedented scale from this date. Britnell has used Rigold's groundbreaking (though now outdated) study of coin finds from excavated sites to show the spectacular eleven-fold increase in losses between the Anglo-Saxon/Norman period and 1279-1351 (Britnell 2004b: 17; 2004a: 74-5; Rigold 1977). The present work not only pushes the period of growth back to *c*.1200 but, due to its rural context, demonstrates that this shift was occurring in the countryside, among many of the lowland peasant villages of England and Wales, as well as those better understood excavated central places such as towns, castles and monastic sites. As was said of Rigold's results 'it is difficult to conceive how any household, except perhaps in the farthest north and north-west, could live without making use of money for some essential transactions' (Britnell 2004a: 17). The data analysed here suggests that in much of the rural landscape, beyond Rigold's key excavated sites, coin-losses were significant, intimating a monetised economy

that was impossible to infer from other sources of data. An appreciation for the perspective that archaeological material can bring to the study of the living conditions of ordinary people in medieval England has been the theme of important work (Dyer 1989: 3-4) and led to Dyer's vital paper looking at coin finds from excavated rural villages (Dyer 1997). This research established the possibile value of examining coins from a largely peasant perspective and one which has been much developed in this thesis. It would be naive to equate this with the emergence of a full money economy at this early date but the fact that we see growth between PIV and PV of more than fifteen times in real terms (Figure 2.18) suggests that coins were being used more regularly and by a larger proportion of the population than ever before,[141] but it is also true that monetisation was a process which could vary from person to person as well as geographically and between different sections of society.

8.3 The money supply

An appreciation of the level of money supply is a vital aspect for numismatics and monetary history. Several historians have drawn upon data of this sort in interpreting more broadly the wealth of England (for example Dyer 1989; Britnell 2004a; Bolton 2012). Martin Allen has recently published a number of articles on estimating the money supply in medieval England which have been collated and amended in a chapter in his recent book (Allen 2012a: 295-316). These provide an opportunity to compare single find data – namely deposition – against minting – production (Processes [5] and [6] in Figure 2.2). These mint records are the best available in Europe (Allen 2012a: 295) but despite this two factors militate against their ability to provide a full picture of currency; the first is that ecclesiastical mints are almost entirely undocumented, while secondly there are gaps in the coverage of the royal mints. Even with these caveats it is possible to draw broad comparisons between the two sources; four areas of interest are explored below.

In the early period (1066-*c*.1190) we must rely on die-estimates as evidence of mint output and those recorded for Lincoln, Winchester and York provide this data. This limits

[141] The disparity between PIV and PV if finds are measured per year of circulation period are less pronounced but still show an increase by a factor of five.

the geographical representativeness of the data, but broadly speaking comparing the estimates for the last two types of Henry I, types I and VII of Stephen and the entire *Cross-and-Crosslets* coinage against the single find data shows remarkable consistency in the relative levels of each source. There is however a major divergence in the die-estimates for Henry I type 15 and Stephen type I. The former is relatively well above the level of single finds while the latter is under what the PAS and EMC finds suggest. Why this might be is uncertain but must serve as a warning against the utility of regional, mint-specific die-estimates in talking about currency patterns at the national level. From 1220 the data become more statistically viable and are based on documentary evidence rather than dies. In the Long Cross period (PVI) it is possible to compare the output records for the recoinage of 1247-50 by mint against the data from Class 1-3 coins in Chapter 4 (Allen 2012a: 307; Figure 4.70). What emerges is a strong correlation between the two sets of data in terms of the most prolific mints. London, Canterbury and Lincoln rank as the top three in both datasets, revealing that mint output at the major mints contributed fairly equally to the circulation pool across England and Wales. Beyond these prolific mints, however, the pattern is less clear. Partly due to the limited numbers of identifiable PAS coins and partly due to the relative levels of recording in areas of the country the ranks do not correlate well beyond the top three. The mints at Northampton, Norwich and Gloucester slip while Bristol, Newcastle and York rise. These anomalies require further regional work with an enlarged corpus of finds before they can be fully understood but it is likely that the varied levels of detecting within the catchment area of certain mints are the cause.

Allen's estimates of the denominational composition of the currency 1279-1351 shows some fluctuation in the proportions of halfpennies and farthings produced at the mint (2012a: 311). As a percentage of the total quantified output the fractional coins account for between 0.56% and 10.53% in the period 1279-1331 (although the mean is somewhere between 1-3%), 100% in 1331-1343 and *c*.27% 1344-1351. These last two periods reflect the measures taken to address the shortage of smaller value coins in circulation. Combining Allen's estimated fractional outputs for 1279-1351, the halfpenny

and farthing output stands at £119,386-£119,476 with a total quantified output of all coins of £3,039,163-£3,054,753; thus around *c.*3.9% of the silver output (valued in pounds) was struck in the two fractional denominations. Of course, we don't know the exact split between the two denominations, my data revealed that 7% were halfpence and 8% were farthings but this tells us about individual losses rather than the value of silver minted into coin. If all of the £119,386-£119,476 of silver recorded as being struck into fractions was minted into halfpennies this would account for 7.53% of all the coins in circulation, similarly if these were all farthings then it would account for 14% of all coins; in reality the true figure would lie somewhere between these two extremes. Even the most optimistic of these figures is slightly below the 15% fractional portion seen in the PAS finds further reinforcing the idea that this largely rural dataset, which should reflect something of the peasant economy of England and Wales, diverges from what we know of production and suggests that aspects of rural 'monetisation' could be quite different from the national pattern. The final area of interest comes after 1351. Denominations are not recorded in the mint documents (Allen 2012a: 312) but it is possible to agglomerate some of Allen's data to make some basic comparisons with the silver coins in Periods VIII, IX and X. For 1351-1408 the combined value of silver minted into coin was £483,454, or 19% of all silver minted 1351-1544; in 1412-1464 this was £618,551 (25.4%); and for 1464-1544 the figure is £1,336,858 (54.8%). The clear emphasis here is on the last period with over half the silver minted into coin. It should be said that the period is of longer duration than the previous two, which makes the nature of the single finds over the same period even more remarkable. The share of single finds (measured crudely in penny value) stands at 43% in 1351-1412, 25% in 1412-1464 and 32% in 1464-1544. While PIX is almost identical in both sets of data, there is clear divergence in PVIII and PX, showing that levels of PAS single finds are not matched by output figures. Why this should be is uncertain, however it may be a consequence of changes in the levels of velocity of circulation of coins as silver became increasingly scarce as well as the effects of the introduction of a gold coinage, which did not form a major part of the general circulation as reflected by single find data.

8.4 Comparative datasets and historical events

The extensive use of macro-scale GIS distribution mapping of PAS data in this thesis provides an important new source for interpreting economic activity at the national level. Economic historians and historical geographers have long been concerned with mapping the interwoven variables of medieval population, taxation and the distribution of wealth and a large body of work exists which provides an excellent source of comparanda for the coin distributions generated in Chapters 3-5. The sources used to assess these important demographic areas of the medieval economy vary in utility and geographical completeness but the key documents consist of Domesday Book (1086) which is the first date at which credible estimates can be made (Hinde 2003: 1), the Lay Subsidies of 1225, 1334, 1524-5 and 1543-5, Pope Nicholas IV's *taxatio* (1291) and the 1377 Poll Tax. The sources are far from perfect (Allen forthcoming) but do offer our best window on the distribution of people and resources at a number of static dates in the later medieval period. The wide parameters given for population levels reflect the 'highly speculative' nature of estimates of this kind (Hatcher 1976: 68). For example the Domesday estimates rely heavily on assumptions of household size with 4.5-5.0 persons favoured by Hinde (2003: 16). In tracking any long-term trends such caveats must be borne in mind; however, the data represent our best chance for interpreting the national distribution of wealth.

Most historians concur that the population of England saw periods of growth in the twelfth, thirteenth and sixteenth centuries punctuated by periods of stagnation and the epic decline witnessed in the fourteenth century, now understood to have resulted from a combination of factors and culminated with the Black Death of 1348 (Hinde 2003: 2; Dyer 1989: 5, Britnell 2004: 72). However it is possible that the population had been in slow decline in the three to five decades prior to the epidemic (Glasscock 1976: 145; Hinde 2003: 31). Sustained population growth is a key factor in fuelling economic expansion (Bolton 2012: 305) although high population also coincided with a lower standard of living (Hatcher 1976: 69). It is possible, given the periodized scheme used to analyze the coins in

this thesis, to set the numismatic data against population and taxation distributions generated from the work of economic historians.

Maps assessing wealth in England often use the Domesday survey as a benchmark to compare later data against (Darby *et al* 1979). In plotting the geographical distribution of wealth in England in 1334 the values of Domesday men and teams were assessed relative to the lay subsidy of 1334 (Darby *et al* 1979: 255). This effectively charts changes in the relative distribution of wealth rather than absolute wealth (Map 8.1). Those areas in the highest quintiles for both assessments of men *and* teams are the Lincolnshire Fens, large parts of the East Riding and North Yorkshire, a band along the Pennies and into Derbyshire, Shropshire and Staffordshire, as well as smaller pockets of growth in a zone below a line drawn from the Severn to the Wash. It is difficult to reconcile this map with the coin distributions which are much more prolific and widespread at all periods. Perhaps the differential would be more striking if we looked at changes in coin distribution from PI to PVII in isolation (Maps 3.6 and 5.1). In this limited comparison there are many areas of correlation, notably the north-east and parts of the south and notably the small area of Land's End, but other areas where growth in coinage is significant are not shown on the lay subsidy quintile map. Indeed, the Midlands, where coin finds were so prolific in a band from the Worcestershire to Leicestershire, are not visible as areas of growth. This could imply that these areas were sufficiently wealthy at the time of Domesday so as to not register in the assessment of 250 years later. What the coin find distributions do is to provide a type of empirical economic data for the intervening periods between Domesday and the thirteenth century. It is for future students to find ways to equate coin finds to contemporary wealth (if indeed this is possible) but there are some clear links. When Glasscock published his detailed study of the 1334 Lay Subsidy he concluded that there was a poor northern zone to the north and west of a line drawn from Exeter to York, to the east and south was a more prosperous zone (Glasscock 1976: 140-1). Allen's (forthcoming) study of coin hoards in England and Wales revealed some similar patterns of distribution and there is a clear level of correlation among the single finds of PVII

reflecting a tangible link between the moveable wealth of taxpayers and the relative levels of monetisation.

The coin evidence from PVII (1279-1351) was in many ways the most impressive in terms of pure volume of single finds but perhaps not surprising given both hoard and documentary evidence regarding production in this period (Allen 2012a: 410-15). The total number of coins was almost twice that of the second most prolific period (PV 1180-1247) and was joint leader in losses per year (Figures 2.17-19). PVII is arguably the best serviced period for comparative economic distributional data as it saw Pope Nicholas IV's 1291 grant to Edward I of a tithe on the spiritual and temporal revenues of the Church in Britain and Ireland as well as the lay subsidy of 1334. Bruce Campbell has recently compared economic development in England, Wales, Scotland and Ireland *c*.1290 with results of some significance to this thesis (2008). One of Campbell's most useful maps charts the income of the church spiritualities in England and Wales in 1291 (Campbell 2008: 924; Map 8.2). If we compare this data with the PVII coin finds (Figure 5.12; Map 5.1) there are some interesting parallels. The correlation is strongest in Lincolnshire, Norfolk and Suffolk which are the top three counties for coin finds and also rank in the £4-<£5 per square mile in the *Taxatio* data. Elsewhere however the comparison is less strong, Kent's high *Taxatio* income is not mirrored in coin finds, which, while ranking fourth in the overall list, are of the same order as those from North Yorkshire, Leicestershire, Warwickshire, Hampshire and the Isle of Wight – all counties with a pedigree of finds recording. Cambridgeshire also ranks highly in the *Taxatio* data, but here single finds are low, placed 17th in the list of finds from all counties in PVII. Clearly then there is a rough correlation between these two datasets, certainly in the proliferation of high-ranking east coast counties across both distributions and to some extent among those most prolific counties. However what we may glean from this comparison is that distribution of ecclesiastical wealth was not a definitive marker of general coin use and monetisation. Other comparative evidence comes from Campbell's estimates of population density per square mile in each county in 1290 (2008: 929; Map 8.3). In comparing the two maps there is a better correlation in areas dense with people and with coin loss. Unlike the church spiritualities map the

estimated population distribution shows the band of counties running from the Severn Estuary to the Wash which is so visible in most of the coin find maps.

In the sixteenth century two lay subsidy assessments were carried out, in 1524-5 and 1543-4 and were levied on each man's goods (including coin and plate), landed incomes and wages (Sheail 1972: 111). There were some changes in the assessment criteria used in these subsidies compared with earlier ones but their overall utility is comparable and it is 'probably safe to assume that the returns reflect some of the major elements in the distribution of population and wealth' (Sheail 1972: 124; Baker 1976: 195). The maps generated in Sheail's work (1972: 119) provide a benchmark against which to test the PX coin distribution (Map 5.4 and Map 8.4). What we can see are areas where the numerous coin finds match areas with high numbers of taxpayers per square mile. Much of East Anglia, coastal Lincolnshire, parts of Hampshire and the Severn Valley and York's hinterland are visible on both maps, however the heavy taxpayer distributions in the West Country, especially Dorset, Somerset, south Devon and south Cornwall are exceptional and in no way reflected in the coin data. Why this should be is as yet unclear but it has been suggested that coastal areas were prosperous and had large centres of population. Why this wealth did not penetrate into the countryside as it did in some other areas will be the subject of further study.

Historical events

This thesis showed that patterns of single-finds and hoarding did not relate to each other in any consistent manner spatially or temporally. At several junctures the relationship between the two types of evidence correlated strongly, such as the pattern of hoards and single-finds in the north-west of England in the Short Cross coinage (1180-1247), conversely at other periods it was almost impossible to rationalise the two sources of evidence as being representative of the same phenomena. This divergence leads us into the complex issue of establishing whether historically attested events impacted upon the coinage in terms of distribution. There has been some reluctance to attribute hoarding horizons to specific historical events, however at various periods localised patterns can be

plausibly related to known historical narratives, for example the Viking invasions of the 860s and 870s (Blackburn 2007), or the proliferation of hoards in Sussex and the south coast from the time of the Conquest (Dolley 1966). In the same vein the widespread local damage wrought by contending armies could severely interrupt an economic system in which the reliability of the money supply mattered (Britnell 2004: 291) – we can see evidence of this in particular in the single-find data in the northern counties resulting from William I's harrying of the north. The PIII coinage showed incontrovertibly that the political and military divisions engendered by the Civil War impacted significantly on coin production and circulation. But is it possible to apply a similar thesis linking Edward I's military campaigning and colonial expansionism in Scotland and Wales to tangible patterns of single-finds on the ground?

There can be no doubt as to whether the movements of large bodies of men and resources into Scotland and Wales impacted on hoard distributions. Allen cites the redistribution of large royal reserves of cash as an important mechanism for circulation into Scotland and Wales (2002: 37). The evidence, in particular from the northern border counties of England around the period of the first Scottish War (1296-1328), has led most commentators to draw the conclusion that this growth in the hoarding of coins was a consequence of Edward I and II campaigning in Scotland (Metcalf 1977b; Allen forthcoming). The hoards were either buried by English soldiers passing through the region or were the savings of northern troops levied into the army and hidden for safe keeping until their (failed) return. Map 5.5 plotted the single finds against the hoards at a national level and one can clearly observe significant numbers of hoards in Durham and Northumberland which are not paralleled in previous or subsequent Periods. If one compares this to the percentage of single-finds in the two counties across the same time frame (Figure 5.12) we see that the clear spike in hoarding activity had negligible impact on the single-find data. In County Durham PVII coins account for just 2.4% of the regional total – the lowest contribution the county makes in Phase C. In Northumberland the 4.9% in PVII is higher than the PVIII figure but lower than the subsequent two Periods suggesting that the increased hoarding of coins, surely linked with military activity in

Scotland, had little impact on daily transactions and the localised currency in the regions closest to the theatres of war.

Edward I's campaign of castle building in Wales was the most co-ordinated and impressive in medieval history with expenditure, between 1277 and 1304, estimated at just under £80,000 (Carpenter 2003: 512), much of which must have arrived into Wales to pay the labourers and suppliers at a local level. This vast sum paid for all aspects of the construction and fitting of these impressive structures, but what impact did the influx of millions of pennies have on patterns of hoarding and single-finds, and how far can such evidence be used to address questions around the impact on the economies of those regions of Wales most affected by castle building and colonisation? The coin evidence from Wales prior to PVII is limited at best (Maps 3.24-6, 4.21-3). In the Norman period there are a handful in southern areas and just one hoard in each Period between 1158 and 1279 in spite of the attested growth in the availability and circulation of silver coins from *c*.1200 seen at notable sites like Llanfaes, Anglesey (Besly 1995) and more generally in the southern coastal plains of the Vale of Glamorgan. In Wales, as in Scotland and Ireland, the commercial and mercantile centres were concentrated on the coastal towns. Beyond these areas, according to Campbell, 'perhaps a million people lived in Wales, Scotland and Ireland beyond the manorialised, parochialised and market-focused ambit of English life. They adhered to laws, beliefs, social structures, value systems and modes of reciprocity and exchange that were profoundly different from those prevailing in the… arable farming lowlands firmly controlled by Church and state' (Campbell 2008: 937). In PVII however the level of hoarding expands with 15 small hoards having been recovered from many parts of Wales (Map 5.5). This is most clearly apparent in the north and parallels the evidence from Scotland cited above in which known military campaigning and an increase in hoarding correlates. Allen (forthcoming) draws a similar conclusion and links the two Neath Abbey hoards and possibly one from Cefn Coed to Edward II's flight to Neath in 1326. Similarly the growth in the hoards is not accompanied by a similar growth in single-find numbers; in PV Wales accounted for 12% of the West of England and Wales regional total, in PVI this figure rose to 13.3%. In PVII there was a small elevation to 13.6% (Figures

4.22, 5.12). The use of coinage in daily life in some, mainly coastal, parts of Wales was already established, probably from around 1200, and the impact of Edward I's castle building on the local economies, particularly in Gwynedd, seems at best marginal. The obvious conclusion to be drawn is that most of the coin paid to workers on the great building projects of this period must have either been reintegrated back into the system which dispersed them or otherwise moved with the labourers when their period of work was concluded. It seems, on the evidence of single finds, that the great castle building projects had little effect on local currency, indicating that monetisation was a big picture phenomenon not dependent on short-term localised activity.

8.5 The role of imported coins

There are, broadly speaking, two groups of imported coins found in England and Wales, those that were linked in some way to the English money and those that were not. Of the first group coins like those of Scotland took inspiration and design elements from the English model, thus the pence of Alexander III changed in line with developments in the coins of Henry III, while a number of Continental issuers produced imitative pence drawing on the Short Cross, Long Cross and Edwardian sterlings; also in the first group were coins minted under English authority but in other territories, primarily in Ireland and to a lesser extent parts of France from as early as the reign of Henry II but most intensely during the Hundred Years War. These commonalities help explain why such coins are to be found as English finds. The second group includes everything else. These were more difficult to categorise under the criteria of links with the English coinage, in some cases the bullion value seems to have been important – certainly for the gold coins in the days before an English output in gold and potentially with other good-quality silver coins. The explanations ventured above cover a very monetary and trade-centric perspective, but fail to address ideas of networks of contact and individual agency. There is now a solid corpus of data to argue that much of the coinage is the residuum of links – most often through trade, but also directly through personal visits and the movement of small numbers of coins in the possession of travellers. The vehicles of transit can be as variable as the motivations of the individuals involved, but we must look to pilgrimage, crusading, cross-

channel landownership and diplomatic and ecclesiastical networks as the primary movers of coins. Four themes were outlined in the introduction to Chapter 6 which provide a framework for summarising this data.

Political climate, contact and responses

An overriding truism seen in the English coinage in this thesis was the limited impact that short-term events had on the circulation of money. While this stands as a general rule there were occasionally episodes of activity by the English crown overseas that were responsible for the influx of foreign coins at certain times. There were also unwelcome longer-term trends that engendered governmental intervention. Often the biggest driver in the movement of money came from the political landscape and in essence the shifting ambit of England's links with the major medieval continental powers. The Norman Conquest provides the first real shift in England's axis of contact in the study period, moving from Scandinavia towards France. The coin finds show that the Danish and Norwegian PI finds are the last imports for several centuries and this period also coincides with an increase in the presence of Norman and French coins, though Normandy deniers are known from before the Conquest. Later, in the fifteenth century, we see a very tangible growth in Portuguese and Spanish coins which we can attribute to the political relations fostered with the Iberian peninsular by successive English kings. War too made its mark: The Anglo-Gallic coins of PVII as well as the small numbers of Baltic coins in PVII-PIX speak respectively of English involvement in the Hundred Years War and the Northern Crusade. Other, less direct, evidence comes from the prevalence of debts and dues expressed in continental (primarily French) terms of reckoning. This tells us of the spheres of contact and cross-channel landownership present in England in the twelfth century. Other evidence, backed up by the data in this thesis, comes from governmental responses to the threats posed by the influx of foreign coins at different times. In 1210 Irish coins were ordered to be accepted in England, but most other legislative measures were to regulate what was allowed to circulate and forbid the use of foreign pieces. The problem of continental sterlings of the late thirteenth and early fourteenth centuries were legislated against in 1291 and 1299 and the finds evidence shows that these were fairly

successful. The prohibition and seizure of Venetian soldini in the fifteenth century was insufficient to stem their flow into England and only diplomatic pressure halted their continued import, and then only temporarily. The single find evidence shows just how widely they dispersed into currency in England and Wales in both incursions. Similarly the double patards, which were made legal in 1469, enjoyed wide circulation alongside contemporary groats, although the curious absence of other coins mentioned in the same agreement remains unexplained.

Distribution and context

The series of distribution maps plotted in this thesis have provided a basis for interpretation across the later medieval period unparalleled in previous work and in many ways represents just the beginning of the analysis of such material. Several examples can be cited as evidence for the contribution such methods can have in answering questions of the movement and use of imported coins. Scotland is an interesting case in point. In PIII finds are primarily limited to the northern English counties while finds further south are associated with major urban centres (like London) and the riverine networks. By PV the single finds show a much broader distribution, no doubt tied in with increased output but also with the developing monetisation of the country led, partially, by the huge growth in the English coinage. This is not a pattern visible in the hoard record and continues into PVI. An area for examination is the north-west where a pocket of PV activity points to the potential for discrete zones of circulation of particular coin types. It seems possible that the north-west was connected in terms of the coins in use with western Scotland and Ireland. Additionally there are pockets of finds from certain sources which cluster in defined areas and can therefore be useful in developing the narratives of contect with reference to other source material. Notable are the London-centric distribution of German coins (liked to the Steelyard), Scandinavian coins focused on the Danelaw, Islamic coins in London (centre for merchants and high-level transactions in gold) and Baltic coins along the north-east coast. These and the many other patterns identified in the thesis await future scholarship.

Role in currency

Over the study period we see a variety of different imported coins that can be argued to have played some role in the English currency. Some of the earliest, known from documentary sources, are now only beginning to be recovered as finds. Gold coins, first Byzantine and Islamic, followed by Italian and French, are cited in the Pipe Rolls and in Henry III's great treasure and were clearly a requirement for the high-level transactions of the king, the upper aristocracy and the burgeoning merchant classes. Their relative absence as finds is not an issue, after all gold coins in general are very scarce and one must remember that they were stores of wealth as opposed to an often used medium of exchange. The later appearance (from PVIII) of single finds of gold coins shows how diversified the currency and the uses to which it was put had become. The Byzantine copper coins largely from London and Winchester, which have role in currency, reflect contact, either directly or indirectly, with the Byzantine Empire. Other coppers, like those from Sicily and material from the Levant, give credibility to the argument for crusaders and pilgrims returning with keepsakes of their journeys. Given the sustained high quality of the English mints' output there were few continental silver coins that could find use as penny equivalents, although a number of Scandinavian, German and Low Countries coins are likely to have performed this role. The Scottish, Irish and sterling imitations mentioned above were a consistent presence through the thirteenth-fourteenth centuries and were not overtly discriminated against by the user. Small numbers of silver coins larger than the penny, particularly French and Italian gros, are known before and after the abortive introduction of Edward I's groats. These must be linked with the requirements of merchants and their coastal distribution suggests that to be the case. In the era of bullion shortage and sporadic mint production in PVII-IX Venetian coins played the role of halfpence. However, with the modest recovery in coin finds seen in PX comes an increase in the sources of imports. Irish minting returned under Edward IV and entered England and Wales in some numbers, Burgundian double patards circulated by virtue of the monetary agreement of 1469 and Portuguese coins also increased. This latter group is worthy of future investigation.

Impact on the economy

Gauging the economic impact of foreign coins from single finds is difficult to quantify. We can see in the legislative measures discussed above that certain types of coin – particularly unwelcome pieces that were thought to undermine the English currency – were deemed threat enough to warrant sweeping action, but how can we gauge the impact on the economy of such coins? The relationship between hoarding and single find distributions and the changing patterns seen in the data over time allow us to make some concluding remarks. In PI-PIV hoards foreign coins are particularly limited but the single find data demonstrates there were areas where foreign coins enjoyed some degree of use which is otherwise invisible. This comes back to ideas around the nature of hoarding and the agency of hoarders. As has been shown the majority of later medieval hoards were accumulated from a range of sources and usually represent the best available coinage in terms of weight, fineness and acceptability. In most periods this would have obviated the inclusion of foreign coins and only hoards assembled from limited circulating pools or perhaps under stressful conditions would have included them. The single finds discussed here act as a control for assessing the full body of coinage available at points in time.

Over time we see coins from certain sources, such as Scotland, Ireland and the Low Countries, become a consistent element in both hoards and single finds from PV-PVIII after which Scottish coins become debased and are legislated against, Irish coinage ceases production and the Low Countries 'threat' disappears. In their wake imports from Venice and Portugal appear and play alternative roles in currency, as small change in the former case and possibly as halfgroat equivalents in the latter, although both fill the needs of the everyday consumer which in the fifteenth century was not well provisioned by the mints. Hoarding of these types of coins varies. Small-value coins are rarely hoarded so it is no surprise that the Venetian soldini evidence is so stacked in favour of the single finds. Throughout the study period coins from most parts of Europe and some areas further afield came to England and Wales. Their roles were often not economic at all but a significant group of sources ensured a small foreign element did function as currency in

the circulating medium of England and Wales to a greater or lesser degree over the whole study period.

8.6 The re-use of coins

A new area of research for coins of the later medieval period concerns the different ways in which they were reused beyond their traditional monetary function and the ways in which they transcended the conventional limits imposed on them in daily transactions. This thesis represents the first serious attempt to synthesise the existing data into the debates in archaeological theory. This thesis identified three main groups of adaptation, i) dress accessory or jewellery; ii) coins mutilated by folding, and iii) pierced coins, and by using biographical and use-life approaches sought to identify the different uses that coins could be put to beyond the purely monetary. Coin jewellery proved to be a large and interesting area with a range of types of adaptation identified, from badges and brooches to pendants and rings. The wide typological base was matched by the broad chronological timeline for adaptation. Pendants appeared sporadically from the eleventh to fifteenth centuries. Of the six examples the earlier types were prophylactic or religious in nature, using the coin's imagery, iconography or additional embellishments to provide personal protection either on the body or for public display. Only one carried a secular message but with a distinctly royal flavour. The most common type of conversion confined within a fairly tight chronological range were the coin badges. These pieces display a range of levels of embellishment in the presence of gilding and the materials used in the fixings. Geographically they were concentrated predominantly in East Anglia, London and Hampshire and Wiltshire advancing what we can say about production and areas of use in an era of a shrinking market for metalworking and personal jewellery. The small group of annular brooches emerged in response to the twelfth to fourteenth century popular fashion for such pieces and, from the small number of extant examples, were manufactured from a range of module of coin, from small petit deniers up to groats. As a small group any distributional analyses are of limited use but we can extend the fashion beyond England to the Baltic, particularly to Gotland and northern Germany. The analysis of the dress hooks gives the type its first academic scrutiny. The main areas of distribution

are clearly defined and are concentrated on Norfolk with other finds from coastal areas and the major towns such as London and Winchester. Their manufacture from a range of denominations suggests the possibility that they may have been used by men, women and children. However, it is their manufacture predominantly from continental gros after the withdrawal of English groats that is interesting. Given the lack of contemporary gros as single finds it can be assumed that their use in circulation was minimal. Where, then, did the coins come from? It seems plausible that the makers of these pieces (which further analysis may prove was limited to a small group of goldsmiths) actually sought out continental coins for transformation.

The research into folded coins which explored the historical evidence for 'coin-bending' and integrated this with the finds evidence is a significant addition to the field and one which has a wider resonance in archaeology. That coins were bent as part of rituals invoking a saint and requesting miraculous assistance is well established in the literature, but the geographical and historical scope of the rite was limited by the relatively small number of shrines from which miracle records survive and which have been published. The PAS material has enabled new insight of how widespread the folding of coins was and the time period in which it was most prevalent. One of the essential properties of coins recorded with PAS is that we can place them spatially and temporally (allowing for the caveats of survival beyond circulation period outlined in Chapter 2). Where the documentary evidence is less clear and where the material discovered in this thesis comes into its own is the type of coins which were used. It is almost exclusively the 'penny' that is stated as that offered, but this thesis has shown that a greater variety of specie was used from halfpence up to the occasional gold coin and also including foreign coins, suggesting, at least notionally , something of the economic and social position of those entering into this ritualised act of deposition. These dynamics await further study. Previous finds of folded coins from archaeological sites saw them almost exclusively recovered from religious contexts. The PAS data has shown that contra to these limitations they are to be found in rural areas across England and Wales. Furthermore they have been given contextual validity by their presence in burials and foundation deposits revealing

dynamics relating to the practical and spiritual application of pilgrim vows which is difficult to observe in any other forms of material culture with perhaps the exception of pilgrim badges. The cases of multiple coins folded together add a new dimension to how these pieces are interpreted in future. The Fulford find of a gilt halfgroat, folded and containing remains of textile, is invaluable in providing evidence for coins bound to the body for medicinal and thaumatergical reasons. We must conclude that the folding act is more complex and has more facets than can be gleaned from the extant miracle records. They clearly embodied a transaction, but the fact that so many failed to reach a saint's shrine is evidence for a more plural application, probably embodied in several different ways by special placement or being physically worn on the body, as healing charms or good luck tokens, as mementoes of the dead, as tokens of memory and as markers of place and identity. The recent discovery of a folded penny in a small hoard of five coins from Wanborough in Surrey deposited at the medieval parish boundary is compelling new evidence for such material being used to delineate boundaries and filters into the discussion of similar material such as mutilated ampullae and pilgrim signs treated in similar ways (Anderson 2010; Spencer 1990).

The role of pierced coins was touched upon. Interestingly they are almost as prevalent in the PAS data as folded coins but equally have not received much scholarly attention. The pierced coins showed treatment in a variety of ways dictated by the position of the hole and its form. The largest group have been interpreted here as amuletic in purpose with a particular period of dominance in PX (1464-1544), followed by a small number of coins bored through the centre – interpreted as marks of demonetisation, and those with multiple holes. As amulets these coin 'pendants' would have been employed to bring healing and good luck similar to pierced stones. The small number of coins of this type excavated from cemeteries show where on the body they were worn and moreover that many were some years divorced from their period of circulation, implying curation and linking with the belief that old coins had healing properties. The majority of the coins were English and were mostly pennies. However in PX the breadth of denominations increases

(even including one gold touch piece of especial interest) as do the sources for the coins. Further work is needed to fully interpret the significance and nature of this material.

Each of these types of transformation had at their core different motivations but were often linked to the idea of the coin as a monetary object fulfilling a transaction in the spiritual realm, as seen in the embellished coin pendants as well as the folded coins dedicated to saints. The archaeological evidence has shown that in fact the folding of coins was more widespread than the historical narratives suggest, and that the concept of taking an earthly thing and transforming its character in the hope of intercession from the nominated saint could be applied in more ways than the documentary evidence suggests. The idea of regional traditions was put forward for some types of coin jewellery as was potential for heirlooms and curated objects.

8.7 Legacy and future approaches

The macro-scale analysis of Chapters 3-6 has clear benefits allowing key patterns of coin use to be identified and changes through space and time to be described. There are obvious limitations of handling such a large dataset, in that it is often difficult to explore individual periods, coinages and patterns in the detail they deserve. To some extent this thesis should be seen as a first stage in putting medieval numismatics on the same footing as Iron Age and Roman studies where such approaches are more developed. Detailed period specific and regional studies are a necessary step, as is the better integration of coin and non-coin data. This thesis will provide an important national overview against which future focused studies can be compared. Funding for new national databases, in the mould of PAS and EMC, should be a priority in the future to synthesise both the medieval hoard record and excavated coins. Such resources would allow scholars to get a fuller, more rounded picture of the nature and potential of coin data, and develop both the ways in which coins are interpreted and the questions they can be used to address. The author is currently exploring the possibility of such a bid to establish a hoards database that would complement the recording of single finds by PAS and EMC.

Coins, monetisation and re-use in medieval England and Wales: new interpretations made possible by the Portable Antiquities Scheme

Two volumes

Volume II

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ILLUSTRATIONS

Site	*No. of coins*	*References*
Canterbury	118	Frere *et al* 1982: 141; 1983: 145-65; 1987: 181; Rigold 1988; Metcalf and Archibald 1995: 949; Archibald 1995; Kelleher forthcoming.
Colchester	16	Archibald 1987.
Exeter	24	Shiel 1984: 248-365; 2004: 216.
London (Vintry)[1]	523	Kelleher and Leins 2008.
Northampton	15	Archibald 1979a; 1979b; 1982.
Oxford	37	Palmer and Mayhew 1977; Dodd 2003.
Southampton	26	Dolley 1975; Rigold 1975.
Thetford	32	Rigold *et al* 1984: 66-8; Metcalf 1993: 95-6; Andrews and Penn 1999; Davies 2004.
Winchester	99	Rees *et al* 2007; Biddle 2012.
York	99	Pirie 1986.

Figure 1.1 Table of excavated coins (dated 973-1544) from medieval urban centres (after Kelleher and Leins 2008).

PAS ID	For consistency and ease of accessing the original records the PAS identification number is retained as the unique ID. Where a single ID number records more than one non-hoard coin they have the PAS number suffixed by an initial (a, b, c, etc.).
Country	This field gives the origin of each coin, usually a country, but sometimes a territory (such as the comital and ducal fiefs of feudal France) or a city (Cologne, Rimini). Coins imitative of those of another country (such as the many Low Countries imitations of Edward I-III pennies) are given under their actual origin whereas those that are unmistakably forgeries of a certain coin type are included in the country which they copy. Coins struck by the English kings in Ireland and in the French territories under English rule (Aquitaine and Bergerac) are listed as 'Ireland' and 'Anglo-Gallic', but the coins struck at Calais remain under 'England' as they were to the same design and standard as the rest of the English mints' output and intended for use there.
Ruler	The ruler field indicates the authority under which the coins were struck. In most cases this was an individual hereditary ruler, such as a king, emperor or duke, but occasionally it could be an archbishop (as at Cologne), a monastery (Cluny) or a city-state (Wismar).
*Reign dates**	Gives the accepted 'from' and 'to' dates (in years AD) for which the individual or institution named as 'ruler' was active.
*RK period**	The coins all date from 1066-1544; this category indicates one of the ten chronological periods into which the coins have been allocated (see below for details). Where a coin defies identification to a specific period the range of potential candidates is given. Foreign coins do not generally follow the period system used here and will often, therefore, straddle two periods, this is indicated.
*Period dates**	Gives the accepted 'from' and 'to' dates (in years AD) for each of the ten circulation periods.
*Type 1**	Provides a first level of identification for the specific type of coin being dealt with.
*Type 2**	Provides a second level of identification for the specific type of coin being dealt with, usually this is a combination of a number and letter indicating the class of coin, but this field also provides a place for indicating any privy or mintmarking

[1] The material from the Vintry was recovered by metal detector from the spoil which had been lifted and trucked out to a site in Kent and was recorded by the Museum of London.

	(included on English coins from the later 15th century).
*Type qualifier**	This field indicates the precision to which the previous two fields are known to be accurate (certain, probably, possibly). It also allows indication as to whether the coin is a contemporary imitation or a mule.
*Type dates**	Gives the date range for the striking of the coin based on the level of identification and most recent established chronology given in the preceding two categories.
Denomination	The English denominations are given either as penny, halfpenny, farthing etc., in periods where there were no fractional denominations (I-VI) coins had to be cut to produce such pieces and these denominations are prefixed with 'cut'. In some rare cases later coins have clearly been cut to produce smaller coins, these are indicated by '(halved)' after the name of the full denomination. Foreign coins have their native name with the exception of the continental imitation sterlings which I have given as 'penny'.
*Value index**	The value index provides the value of the coin in fractions or multiples of the penny. This is easily done for the English, Scottish and Irish coinage as specie was in multiples or fractions of the penny. Foreign coins that are known to have functioned at a certain value in England also have a value in pence, these are the imitative Edwardian sterlings (1d.), the Venetian soldini (1/2d.) and Burgundian double patards (4d.). Coins (namely gold) for which the official value fluctuated over the periods are given the value at their time of issue.
Metal	Pretty self-explanatory. The medieval coins within the ambit of this study are almost entirely silver issues with occasional gold. Billon (a silver-copper alloy with less than 50% silver) is present in the form of coins from France, and later, in Scotland. Copper-alloy (copper is used for convenience in the database) appears largely in the form of forgeries where a silver or tin wash has long since disappeared. The only bronze coin is a Byzantine tetarteron.
Mint	This field gives the name of the place where the coin was minted, in most cases indicated on the object itself. Coin production was not always the centralised undertaking it became by the end of the remit of this study; a towns mint wasn't necessarily in a single location, nor was it a continuous operation in any but the largest centres. Unknown mint places are indicated as 'uncertain'.
Mint qualifier	This indicates the level to which the mint attribution is accurate; certain, probable or possible.
Moneyer or episcopal issuer	The name of the individual under whose authority a coin was struck was a common feature of the English coinage until 1279[2], this field contains the named individual. Coins produced for the ecclesiastical mints after 1279 have the relevant cleric named in this field. Where the moneyer is unclear, only the legible letters are included, where only a partial legend survives, but the moneyer is unequivocally the only possible match, the full name of the individual is included. Where the moneyer is unknown the entry reads 'uncertain', where the moneyer is no longer a feature of the coinage 'null' appears.
Diameter	The diameter of the coin is given in millimetres to two decimal places if included in the original record. Where no diameter is given a value of 0.00 is provided.
Weight	The weight is given in grams to two decimal places if included in the original record.[3] Weights were removed if they included the weight of any wallet or display envelope in which the coin was weighed. Where no weight is given a value of 0.00 is provided.
*Wear**	This field indicates the level of wear displayed by coins which I have seen. The wear categories are: none, slight, moderate and heavy. Where a coin has not been seen the value will be 'unknown'.

[2] The exception was at the Bury St Edmunds mint under Edward I where Robert de Hadelie was named on coins of classes 3 and 4 (1280-89).

[3] A problem encountered is that many FLOs record to one or even no decimal places, this will severely affect any graphs of weight ranges.

*Clipping**	This field indicates the level of clipping displayed by coins which I have seen. The clipping categories are: none, some, moderate and heavy. Where a coin has not been seen the value will be 'unknown'.
*Re-use**	This field enables reference to evidence on a coin about its use other than as currency which read 'null'. The three principal categories are: folded (extent, position and which side is external); pierced and brooch (where a coin is gilded, decorated or has attachments for fastening to clothing etc.). Where a coin has not been seen the value will be 'unknown'.
*Condition**	The condition field enables a summary of pre and post-depositional damage factors to be indicated, such as breakage, chipping, cracks and completeness. Where a coin has not been seen the value will be 'unknown'.
County (modern)	This field gives the county as indicated on the PAS record. This includes metropolitan boroughs.
*County (historic)**	So far this field has only been filled in for the former counties of finds from the London boroughs.
Parish	Indicates the modern county parish as given on the PAS records, sometimes this was not indicated but where an NGR was included it has been possible to allocate the parish.
*Site 1**	In the case of the metal detected finds this field allows the naming of specific addresses, farms or sites from which finds have come. Any references such as 'club field 8' etc where no further identification of position is given, have been deleted. For excavated finds this field will display an accurate indication of the site, area and/or feature from which the find has come.
*Catalogue no**	The catalogue number is given if present on the PAS record. English coins will have the prefix 'N' for North (1994 and 1991) or 'W' for Withers (2001, 2002, 2003); Scottish and Irish coins will have 'S' for Spink (2003); continental sterling imitations will have 'M' for Mayhew (1983); other specialist works are given fuller reference which is expanded upon in the bibliography.
*NGR qualifier**	This field allows extra information on the findspot to be entered. It is mostly used to qualify the level of accuracy of the given NGR data. Where only a parish findspot was provided on the PAS record I have used the Ordnance Survey Get-a-map facility to establish a central point in the parish. Sometimes the FLOs have indicated the 'general area' or 'field' in which the find was made.
NGR	The finds have been given information to allow their plotting on the British National Grid system, based on the OSGB36 datum. The grid divides Britain into 500 x 500km squares, identified by a first grid letter, these larger squares are then sub-divided into 100 x 100km squares identified by a second letter. After this (usually) follows a six-figure grid reference, three digits for eastings and three for northings. The NGR is essentially as it appears on the PAS database with the following alterations. All spaces between the elements of the NGR have been removed leaving one continuous figure; NGR values now match the easting and northing values (these have been checked where necessary using the Ordnance Survey Get-a-Map online service)
Eastings	A six-figure number given for the easting position on the National Grid. The first digit derives from the first letter of the NGR prefix, then follow the easting digits (between two and five), after this '0' is used to ensure the whole entire is six digits long.
Northings	A six-figure number given for the northing position on the National Grid. The first digit derives from the second letter of the NGR prefix, then follow the northing digits (between two and five), after this '0' is used to ensure the entire number is six digits long.
*Full NGR**	Using the CONCATENATE function in Excel has allowed the northing and easting values to be combined as an all numeric number, for example 1234 5678 would become 12345678. Usually an ArcGIS map would stack identical findspot points on top of one another, masking all but the topmost point, this function increases the size of markers on the map to represent the quantity of finds from any single location.

Figure 1.2 Schedule of fields used for the data in the thesis.

Year	Political/social/economic factors	Monetary factors
1066	*William defeats Harold II and is crowned at Westminster at Christmas.*	
1124		*Henry I type 15.*
1139-53	*Civil War fought between Stephen and Matilda*	*Ceding of minting rights by Stephen and Matilda to minor nobles.*
1158		*Cross-and-Crosslets (Tealby) coinage is introduced.*
1180		*Short Cross coinage introduced*
1205		*Partial recoinage of the Short Cross coins in reaction to claims of clipping*
1247		*Long Cross coinage replaces the Short Cross; first attempts by Henry III to introduce an English gold coin (failure).*
1279		*Major recoinage under Edward I introduces new style pennies and for the first time groats (temporarily), halfpennies and farthings)*
1299		*Partial recoinage to eliminate the build up of crockards and pollards from the Low Countries.*
1315-22	*Great Famine*	
1337-1453	*Hundred Years War*	
1344		*Edward III introduces the gold florin and soon after replaces it with the noble, the weight is adjusted to 128.59 gr in 1346.*
1344		*Weight reduction (Penny 20 gr.)*
1348-50	*Black Death wipes out between one third and one half of the population.*	
1351		*Weight reduction (Penny 18 gr.). Successful establishment of large silver (4d. and 2d) and gold coins.*
Late 14th– mid 15th century		*'Bullion Famine' in Europe as silver mines in Bohemia, Saxony and Tyrol are worked out.*
1412		*Weight reduction (Noble 108 gr. Penny 15 gr.)*
1464		*Weight reduction (Ryal 120 gr. Penny 12 gr.)*
1469		*Monetary alliance with Charles the Bold of Burgundy allows double patard to circulate legally in England (Spufford 1964).*
1544-7		*Henry VIII's third coinage which saw progressive debasement of the coins down to 9oz, 6oz and finally 4oz.*

Figure 1.3 Table of historical timeline outlining the key political, social and economic developments against changes in coins production and monetary policy.

Context	*Life-stage*	*Methodological/conceptual considerations*
Primary	Production	Raw materials; technology; people
Secondary	Use	Person; place; intended message; acquired meanings – monetary, non-monetary; used in payments; converted into jewellery; folded; mutilated; stored in groups; imported/exported
Tertiary	Deposition	Hoarding; accidental losses; special placement, discard, ancient manuring
Quaternary	Archaeological record and recovery	Representativeness; ploughzone and modern agricultural effects; constraints on land; chronological and spatial patterns; excavation and recovery techniques

Figure 2.1 Life-stages of a coin highlighting key themes

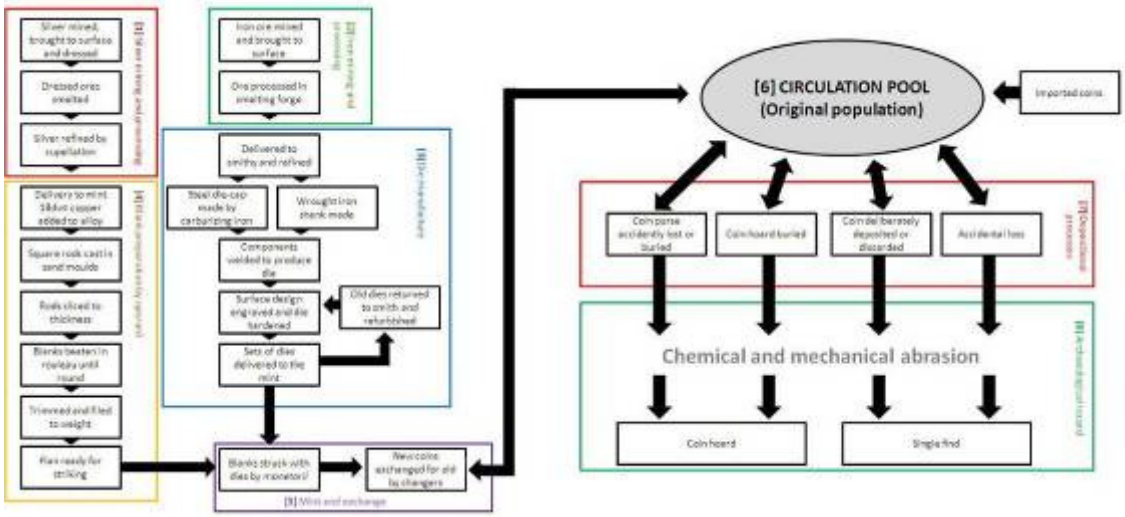


Figure 2.2 Model outlining stages in the life of a medieval coin from production through use-life, deposition and survival in the archaeological record (based on techniques recorded in England, 1279-1544).

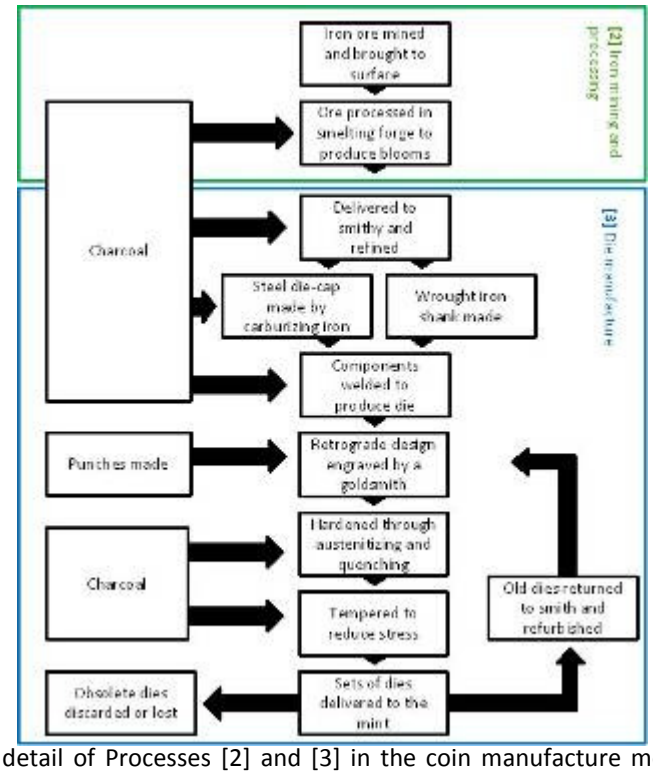


Figure 2.3 Expanded detail of Processes [2] and [3] in the coin manufacture model (Figure 2.2) - the mining and preparation of iron into coin dies. Twenty dozen halfpenny dies or 22½ dozen farthing dies could be made from 250lb of iron and 3¾ *garbae* of steel. Stages reconstructed from Tylecote 1981: 42; Archibald *et al* 1995: 175-7 and Cooper 1988: 33-37.

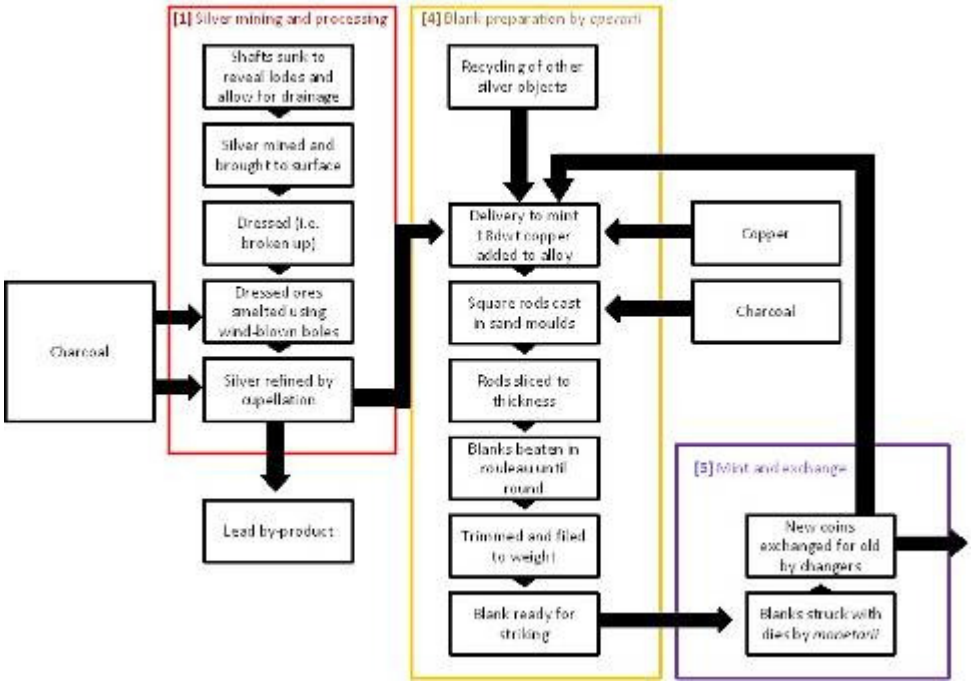


Figure 2.4 Expanded detail of Processes [1], [4] and [5] in the coin manufacture model (Figure 2.2). The stages in the mining of silver from the opening up of a lode through the refining of the silver (Rippon et al, 2009: 71), processing by a blacksmith and striking of blanks into coins.[4]

[4] Prior to 1279 stage [4] operated slightly differently – metal strips were cast and then hammered so that flat blanks could be cut out. However Allen argues that this method continued after 1279 (Allen 2012a: 106). This process would have a series of stages; 1) breaking-down hammering using a narrow anvil and probably a narrow-edged hammer; 2) the strip would be annealed and then; 3) brought to the most accurate gauge using a wide-topped anvil and broad-ended hammer (Cooper 1988: 22); 4) square flans struck between dies; 5) corners cut with pastry cutter (Mayhew 1992: 127).

Spatial/Environmental	*Physical/Personal*	*Functional/Intentional*
Public space/Marketplace Private space/Domestic Church Grave Land/Field	Hand Purse Worn Hoarded	Payment Tax Gift/loan Offering Jewellery (identity; self-expression) Heirloom/found object

Figure 2.5 Expanded detail of Process [6] in the coin manufacture model (Figure 2.2).

Categories of re-use	*Examples*	*No. in dataset*
1) Adapted coins	Jewellery (brooches, dress-hooks, pendants); vows embodied in bent coins; mutilation.	*c.*250
2) Specially placed coins	Foundation deposits (buildings, ships); grave goods.	*c.*20
3) Coins as heirlooms/ 'found' objects.	Passed down object; antique coin recovered and kept.	*c.*10

Figure 2.6 Re-use of medieval coins, categories and examples.



Figure 2.7 Detail of the French petit blanc placed in the keel of the Newport ship (http://www.thenewportship.com/research/fr_coin.htm).

Deposition process	*Context for deposit (Circumstantial and spatial considerations)*
Hoards	Safekeeping Emergency Stolen goods
Small groups	Small hoard Accidental purse loss Lost during a fight
Deliberate deposition/discard	Disposal of forgery, imitative, foreign or damaged coin Foundation deposit Grave offering Offered at shrine/tomb Quayside/well Ships Rivers
Accidental loss	Dropped in transaction in public space Through hole in pocket/purse Domestic loss (manuring and rubbish disposal)

Figure 2.8 Expanded detail of Process [7] in the coin manufacture model (Figure 2.2). Deposition and incorporation into the archaeological record.

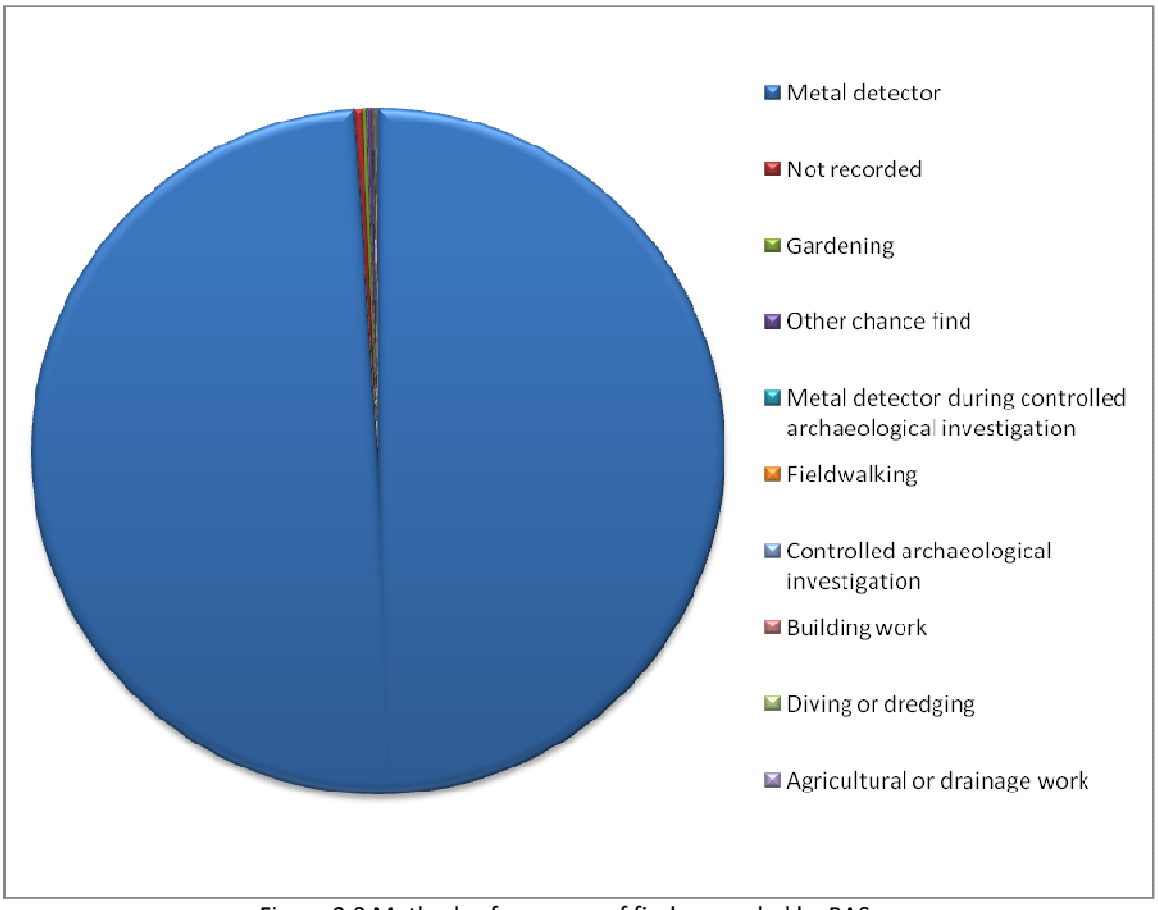


Figure 2.9 Methods of recovery of finds recorded by PAS.

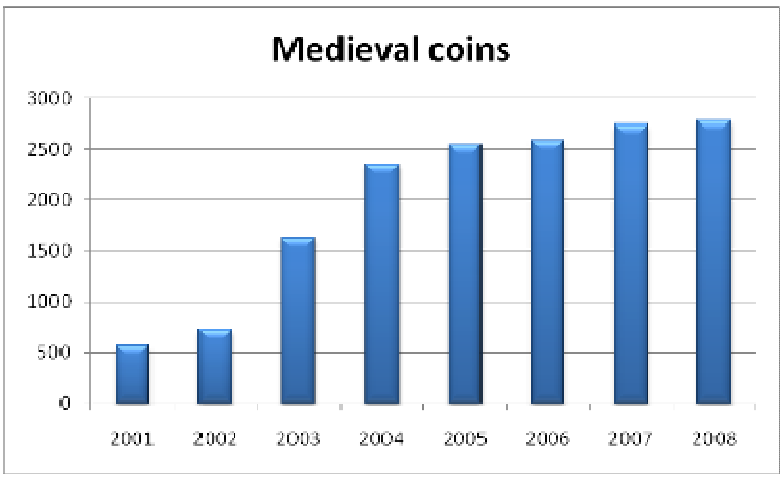


Figure 2.10 Medieval single coin-finds (1066-1544) recorded with the PAS, 2001-08.[5]

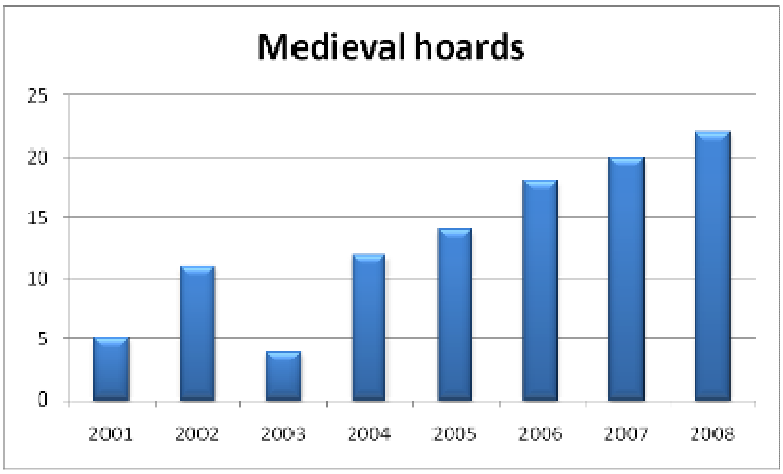


Figure 2.11 Medieval coin hoards (1066-1544) recorded with the PAS, 2001-2008.[6]

Variable	***Survival***	***Recovery***	
		Metal-detecting	***Excavation***
Size, fabric and depth of coin	Damage from chemical and mechanical farming processes.	Small coins harder to locate, weaker signals; potential vertical sorting through ploughing.	Small objects harder to see, relies on individual excavator
Land ownership, legal status		Limited or no access to land; Scheduled Ancient Monument; MoD; National Trust; Forestry Commission.	Limited access to land?
Land use	Farming damage to archaeological horizons and artefacts.	Unsuitable for detecting, i.e. pasture or woodland; flooding; Spatial displacement and sorting.	
Terrain	Possible movement, hill-wash etc.	High ground not cultivated.	Inaccessible/dangerous terrain.
Urban space	Chemical damage; removal of archaeological deposits for construction (cellars etc.)	No suitable open land for searching.	Limited areas for excavation; permanent structures over potential archaeology.

Figure 2.12 Expanded detail of Process [8] in the coin manufacture model (Figure 2.2). Principal factors affecting survival and recovery of coins in the archaeological record.

[5] Statistics from PAS website database search carried out 28/5/11.
[6] Statistics generated from hoards published annually in the TAR 2001-5/6 and PATAR 2006-8.

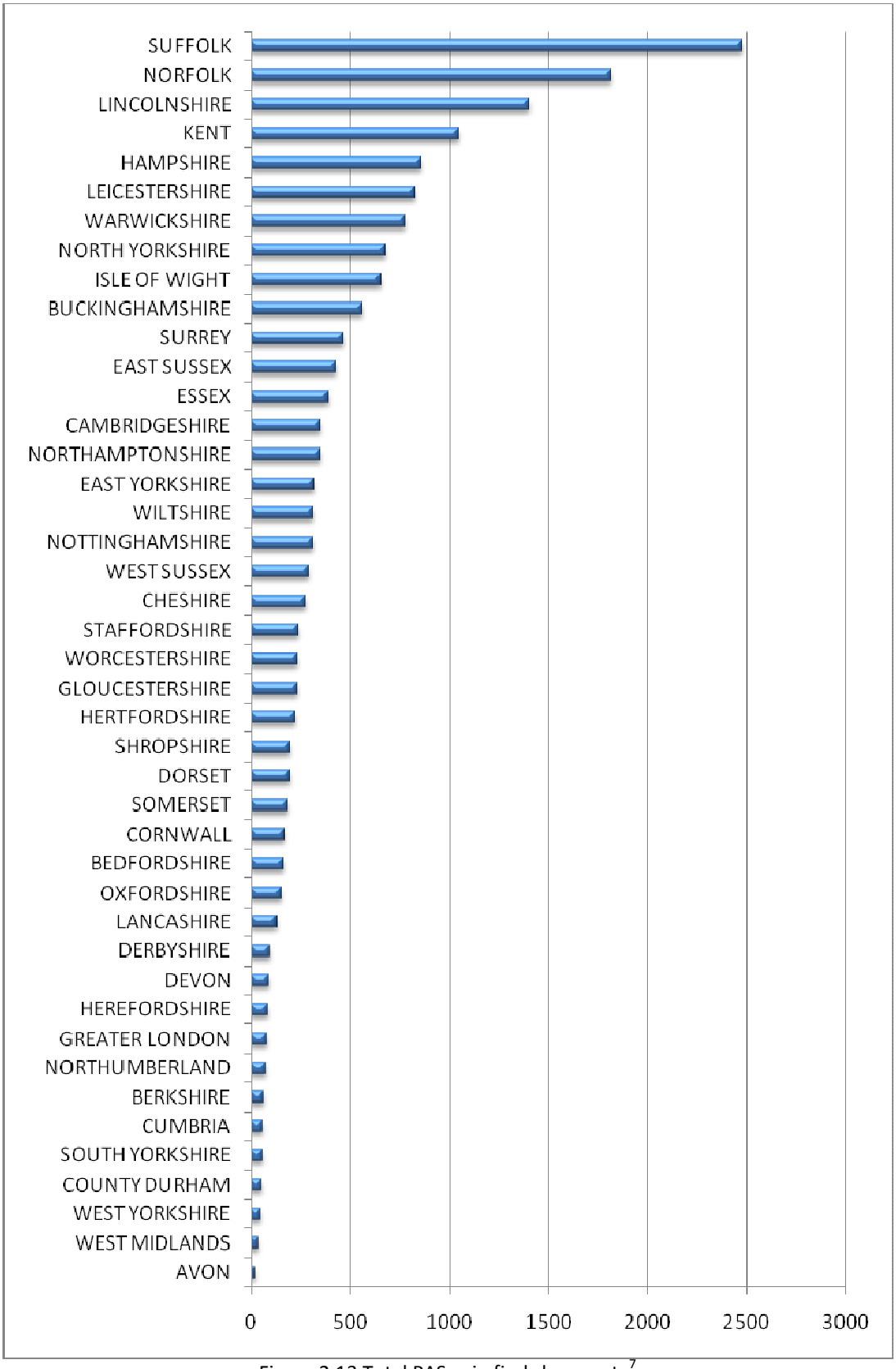


Figure 2.13 Total PAS coin finds by county[7]

[7] The territorial divisions used here largely follow those on the PAS which are the 1974 historic county boundaries. Some of the municipal areas have been reintegrated with their original counties. Finds from Greater Manchester have been combined with Lancashire; Lincolnshire Combines entries entitled 'Lincolnshire', 'North Lincolnshire' and 'North-East Lincolnshire'; Leicestershire includes Rutland; Northumberland includes Tyne and Wear; County Durham includes Cleveland; Somerset includes Bath and North East Somerset and Cheshire includes Merseyside finds.

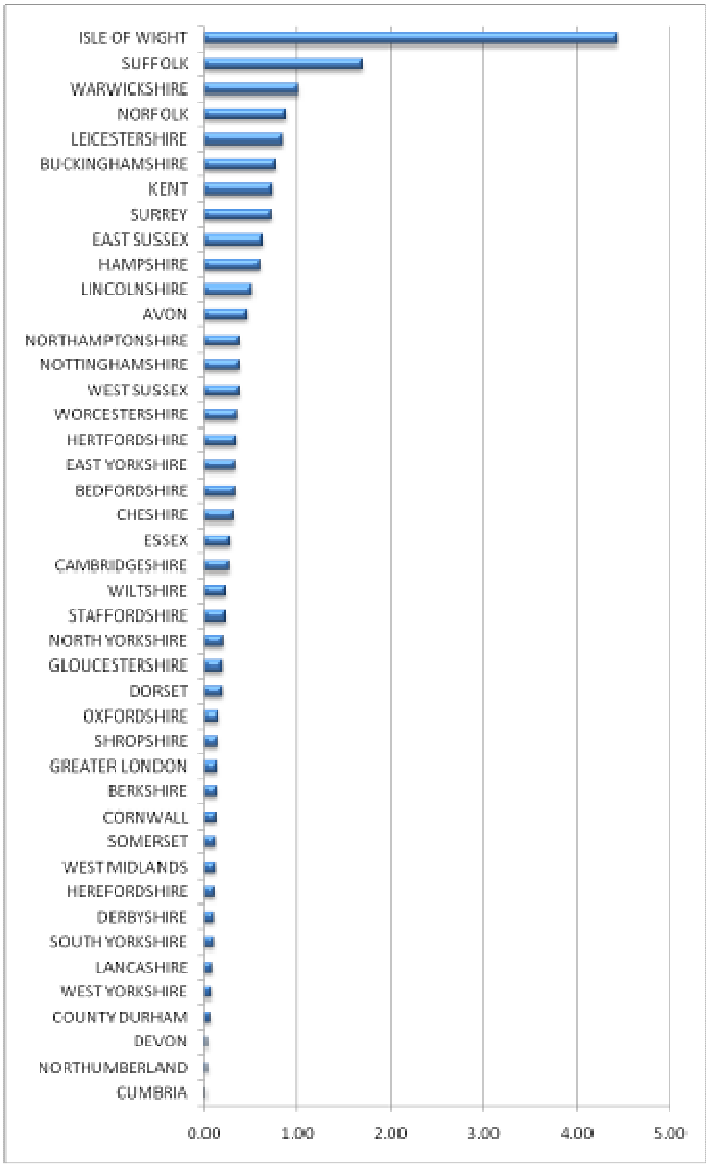


Figure 2.14 PAS coin-finds per square mile by county

Phase	*Period*	*Date range*	*Rulers and types*	*Denominations*
A	I	1066-1100	William I and II[8]	1d
	II	1100-1135	Henry I	1d
	III	1135-1158	Stephen and the Baronial coinages	1d
B	IV	1158-1180	Henry IIs Cross-and-Crosslets coinage	1d
	V	1180-1247	Short Cross coinage (Henry II, John, Richard I and Henry III)	1d; ½d; ¼d
	VI	1247-1279	Long Cross coinage (Henry III and late Edward I)	1d; gold 'penny' (20d)

[8] This division has the added benefit of avoiding the arguments around whether William I's type 8 coins (PAXS) were in fact the first issues of William II, which was suggested by Archibald (1984: 324,328), but questioned by Blackburn (1991).

C	VII	1279-1351	Edward I and II to Edward III 'florin' coinage	1d; ½d; ¼d; 4d; 2d; gold noble (6s. 8d); half and qtr
	VIII	1351-1412	Edward IIIs fourth coinage to Henry IVs heavy coinage	1d; ½d; ¼d; 4d; 2d; gold noble (6s. 8d); half and qtr
	IX	1412-1464	Henry IVs light coinage to Edward IVs heavy coinage	1d; ½d; ¼d; 4d; 2d; gold noble (6s. 8d); half and qtr
	X	1464/5-1544	Edward IVs light coinage to Henry VIIIs second issue	1d; ½d; ¼d; 4d; 2d; 12d; gold ryal (10s); half and qtr; angel (6s. 8d); half; sovereign (20s); crown (5s); half

Figure 2.15 Detail of circulation periods used in this study. Note the growth in diversity of denominations over time, this itself indicates the diversification of coin use.

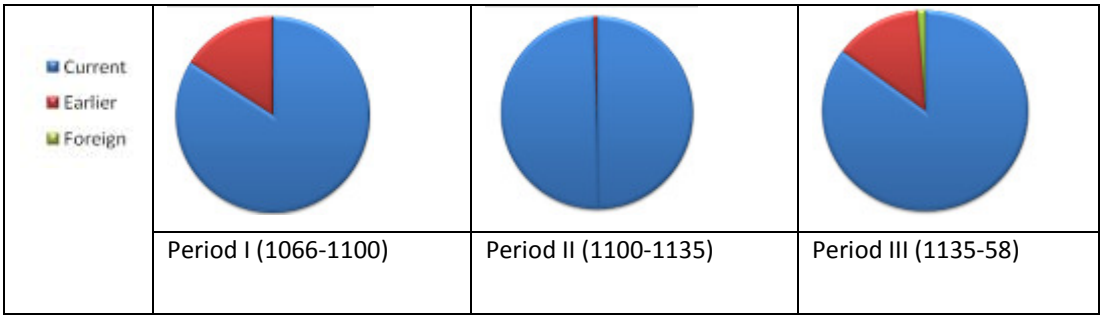


Figure 2.16 Period I-III hoard carry over of coins.

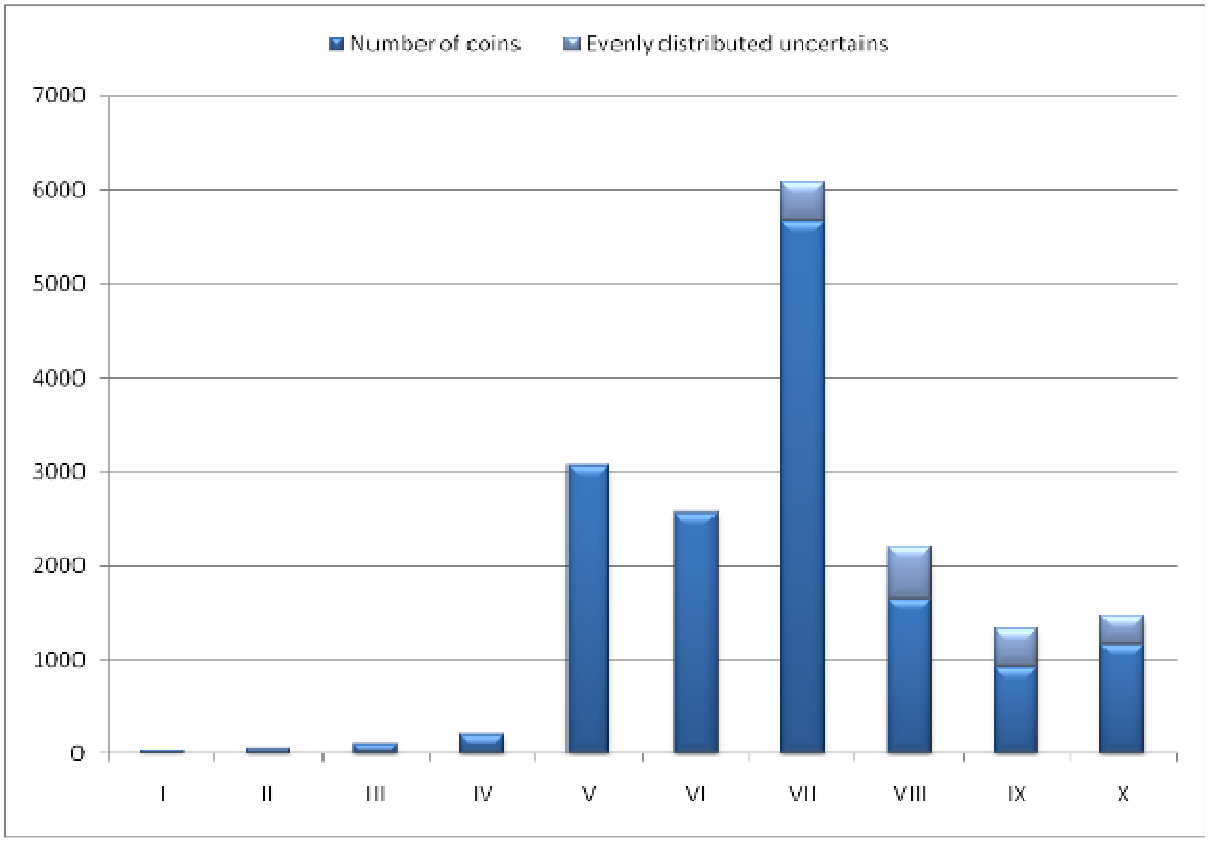


Figure 2.17 All PAS coins plotted by date of production period.

Period	*Coins*	*Years*	*Losses per year*	*Period*	*Coins*	*Years*	*Losses per year*
I	40	33	1.21	VI	2555	32	79.84
II	49	34	1.44	VII	5670	71	79.86
III	100	22	4.55	VIII	1648	60	27.47
IV	203	21	9.67	IX	914	51	17.92
V	3060	66	46.36	X	1165	80	14.56

Figure 2.18 All PAS medieval coins as losses per year

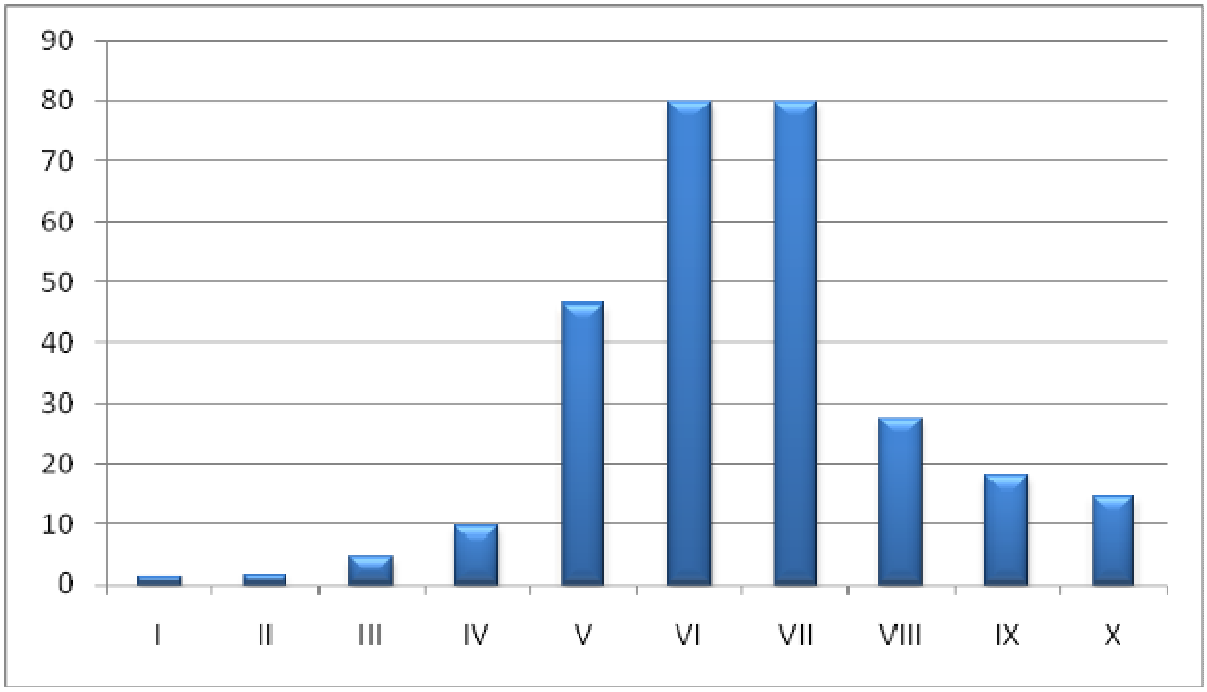


Figure 2.19 All PAS medieval coins as losses per year.

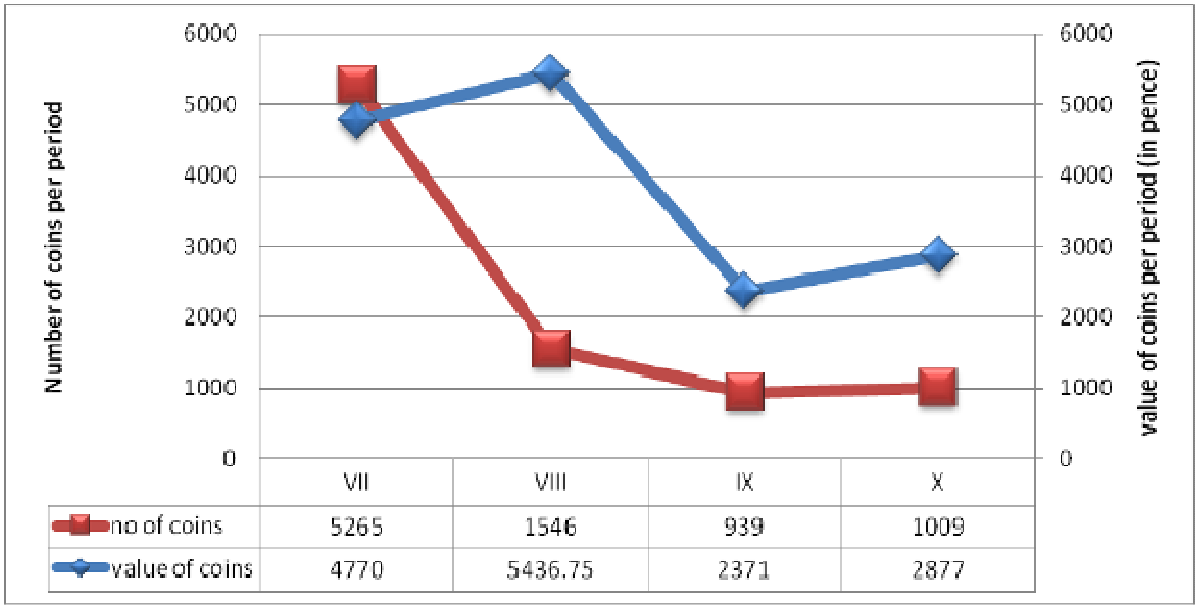


Figure 2.20 PVII-X coins plotted by volume and value.

Period	*PAS Coins (with EMC)*	*Period*	*PAS Coins*
I	41 (534)	VI	2576
II	49 (472)	VII	5772
III	98 (639)	VIII	1622
IV	203 (692)	IX	958
V	3099	X	1173

Figure 3.1 Quantities of PAS coins in the analysis by Period.

Object type/Region	EAST ANGLIA	EAST CENTRAL	NORTH	SOUTH EAST	SOUTH WEST	WEST CENTRAL & WALES	GRAND TOTAL
COINS	**5038**	**3110**	**1355**	**4807**	**946**	**2169**	**17425**
DRESS AND PERSONAL POSSESSIONS	1547	402	121	695	156	192	3140
TOILET, SURGICAL OR PHARMACEUTICAL INSTRUMENTS	9	4	0	9	0	2	24
MANUFACTURE OR WORKING OF TEXTILES	77	20	7	39	17	10	172
WEIGHING MEASURING AND COMMERCE (excl. coins)	405	104	36	270	91	58	969
HOUSEHOLD UTENSILS AND FURNITURE	7	10	3	10	3	10	45
RECREATION	0	0	0	2	0	0	2
FOOD STORAGE AND COOKING	29	8	6	55	9	12	113
WRITTEN COMMUNICATION	168	104	43	158	36	64	581
TRANSPORT	208	56	31	163	54	37	553
BUILDINGS AND SERVICES	1	0	0	11	2	1	15
WEAPONS	15	20	7	21	5	3	73
TOOLS	4	4	2	15	1	3	29
FASTENERS AND FITTINGS	26	18	2	33		7	87
AGRICULTURE, HORTICULTURE AND ANIMAL HUSBANDRY	5	2	0	5	1	1	14
RELIGIOUS BELIEFS AND PRACTICES	20	14	5	19	5	3	66
OTHERS	19	13	2	19	5	7	67
Grand Total	7581	3894	1622	6331	1333	2578	23393

Figure 3.2 Regional proportions of PAS material by artefact group, arranged by the author.

Period	*Single finds (EMC/PAS/dual)*	*Single finds/year*	*Value per loss*	*Hoards*	*Hoards/ year*	*Excavation coins*
I	534 (493/28/13)	15.7	0.93*d.*	39	1.15	58
II	472 (423/40/9)	13.5	0.87*d.*	17	0.5	72
III	639 (540/83/16)	27.8	0.8*d.*	26	1.13	71

Figure 3.3 Summary of Phase A coins by source and period. The excavated coins total includes only English coins securely dated to a period.



Figure 3.4 Coin types under William I and II. Left, William I BMC 6 found at Highnam, Glos. (GLO-A6DDA1); right, William I PAX type found East Kirkby, Lincs. (NCL-21FE37).

BMC	*Type*	*Mints*[9]	*Total*[10]	*Metcalf (1998)*
William I				
1	Profile/Cross fleury (1066-68?)	35	29 (5.4%)	9
2	Bonnet (1068-70?)	43	49 (9.2%)	12
3	Canopy (1070-72?)	36	23 (4.3%)	3
4	Two sceptres (1072-74?)	41	45 (8.4%)	9
5	Two stars (1074-77?)	55	59 (11%)	15
6	Sword (1077-80?)	36	19 (3.6%)	6
7	Profile/Cross and trefoils (1080-83?)	39	42 (7.9%)	23
8	PAX (1083-1086?)	65	128 (24%)	16
William II				
1	Profile (1086-89?)	49	16 (2.3%)	-
2	Cross in quatrefoil (1089-92?)	56	39 (7.3%)	-
3	Cross voided (1092-95?)	50	38 (7.1%)	-
4	Cross pattee and fleury (1095-98?)	33	20 (3.7%)	-
5	Cross fleury and piles (1098-1100?)	35	25 (4.7%)	-
	uncertain		12 (2.2%)	-
	TOTAL		534	93

Figure 3.5 Typological breakdown of Period I coins.

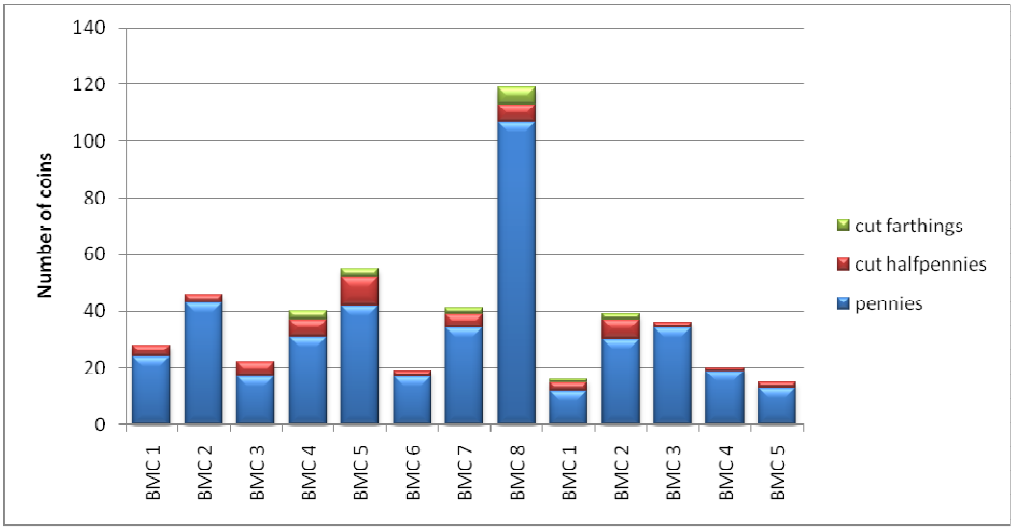


Figure 3.6 Period I coins by type and denomination. Note the high proportions of full pennies throughout.



Figure 3.7 Coin types under Henry I. 1. BMC 1 Annulets type from 'near Thetford' (SF-698C95); 2. BMC 10 from 'Driffield area', Yorks. (FAKL-488422); 3. BMC 15 from Dorking, Surrey (SUR-56DA02); 4. Round halfpenny (British Museum 1989,0306.1).

[9] These figures include certain and probable mints drawn from tables in North but exclude those with inscriptions unattributed to a place and those not verified by North (1994: 193-6). The recent find of BMC 6 from the Gloucester mint is included here.

[10] Mules are counted as a coin of the later type.

BMC	Type	Mints[11]	Moneyers[12]	Total (EMC/PAS/both)
1	Annulets (1100)	21	40	21 (19/2[13])
2	Profile/Cross Fleury (*c*.1102)	26	35	39 (37/2)
3	PAX (*c*.1103)	20	42	31 (27/3/1)
4	Annulets and Piles (*c*.1105)	15	15	24 (22/2)
5	Voided Cross and Fleurs (*c*.1106)	13	20	12 (10/1/1)
6	Pointing Bust and Stars (*c*.1107)	12	14	13 (13/0)
9	Cross in Quatrefoil (*c*.1109)	12	18	33 (29/4)
7	Quatrefoil with Piles (*c*.1111)	26	48	21 (16/3/2)
8	Larger Profile/Cross and Annulets (*c*.1113)	10	8	8 (8/0)
11	Double Inscription (*c*.1115)	21	29	2 (0/2)
10	Full Face/Cross Fleury (*c*.1117)	44	74	59 (57/2)
12	Smaller Profile/Cross and Annulets (*c*.1119)	23	25	18 (18/0)
13	Star in Lozenge Fleury (*c*.1121)	38	71	21 (21/0)
14	Pellets in Quatrefoil (*c*.1123)	52	137	19 (16/3)
15	Quadrilateral on Cross Fleury (1125-*c*.1135)	21	95	133 (118/12/3)
	Halfpennies	8	-	10 (9/0/1)
	uncertain			8 (3/5)
	TOTAL			472 (423/40/9)

Figure 3.8 Typological breakdown of Period II coins.
Estimated date ranges for types are those proposed by Blackburn (1991).

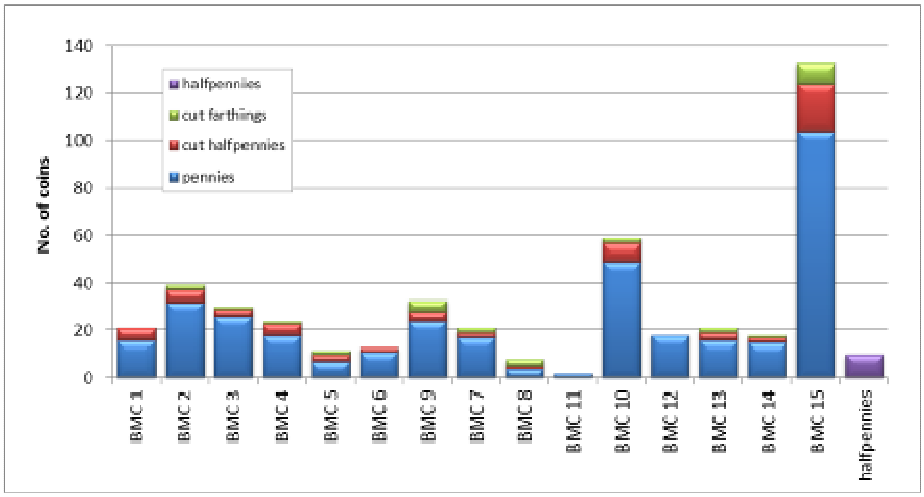


Figure 3.9 Period II coins by type and denomination. Note the high proportion of pennies throughout.



Figure 3.10 Coin types under Stephen. Left, BMC I penny from Gravesham, Kent (PUBLIC-CA3494); right, BMC VII penny from Aldburgh, Suffolk (SF-4EFA85).

[11] The mint attributions are derived from North (1994: 198-201) and include all certain and probable mints.
[12] The figures are taken from Table 4 in Blackburn (1991: 66).
[13] An annulet type of Henry I is muled with the obverse of a William II cross fleury and piles from the Lewes mint (SUR-381446).

BMC	*Type*	*Total (EMC/PAS/both)*	*Total %*	*Blackburn*
I	Cross Moline (*c.*1135/6-42)	253 (207/34/12)	39.6%	60 (55.56%)
II	Cross Voided and Mullets (1142-*c.*1148)	63 (58/4/1)	9.9%	7 (6.48%)
VI	Profile/Cross and Piles (*c.*1148-53)	52 (50/2/0)	8.1%	7 (6.48%)
Baronial	Various (*c.*1142-53)	139 (130/6/3)	21.8%	17 (15.74%)
VII	Cross Pommee (*c.*1153-58)	96 (89/6/1)	15%	17 (15.74%)
uncertain		36 (29/7/0)	5.6%	0
TOTAL		639		108

Figure 3.11 PIII coins by type compared with Blackburn (1994).

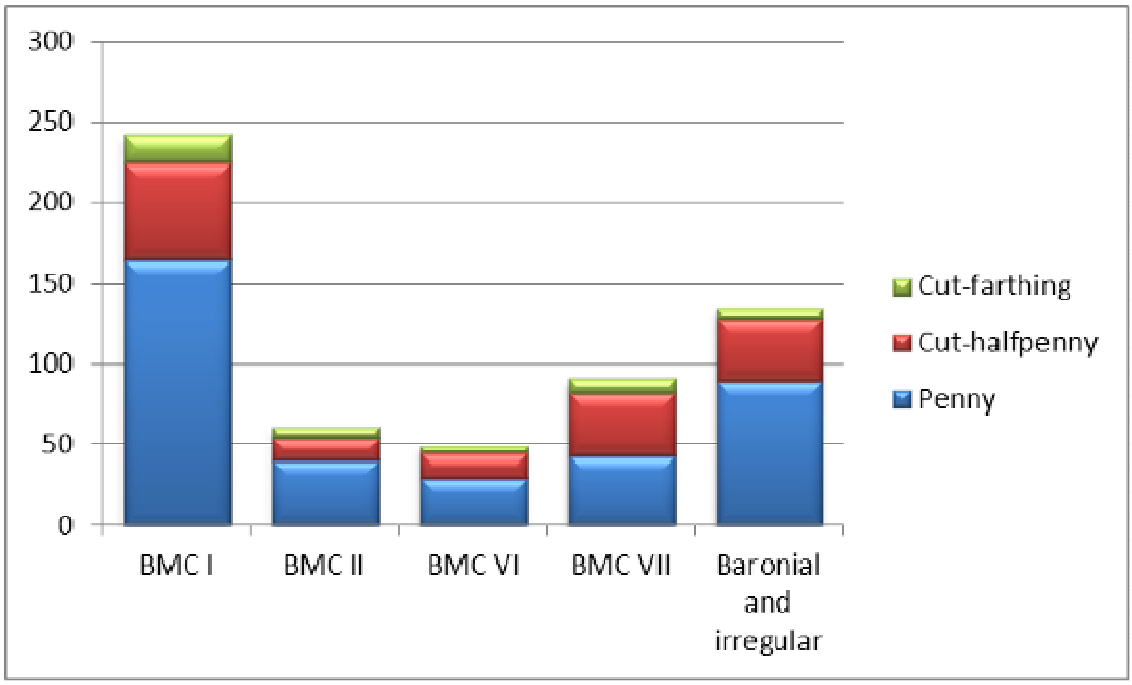


Figure 3.12 Period III coins by type and denomination.

Group	*Type(s)*	*Reference**	*Date range*	*No. of coins*
A	'PERERIC'	N928; M43-60.	*c.*1141	1
	Irregular BMC 1	N882-90; M1, 152, 158, 176, 194-6, 181-5, 187, 197, 204.		12
	Queen Matilda	N921-5; M159-68.	*c.*1141?	3
	Erased dies	N923-7; M230-3, 235-60.	uncertain	6
B	BMC 3. Cross and fleurs	N896; M67-71.	*c.*1143-52	4
	BMC 4. Lozenge fleury and annulets	N897; M72-5.	*c.*1143-52	9
	BMC 5. Lozenge and fleurs	N898; M76	*c.*1143-52	1
	Midland group	N899-903; M175, 177-180, 186-7.		1
	Southampton group	N905; M207-13.		12
	Northern group	N917; M193.		17
C	York group	N918-22; M215-20.		17
D	Scot's border group	N907-16; M188-92, 283-9.	1124-53	22
E	Angevin party	N935-51; M230-3, 235-60.		8
Uncertain types				26
TOTAL				139

Figure 3.13 PIII independent and baronial issues. *Catalogue references 'N' refers to North 1994; 'M' to Mack 1966.

REGION and *county*	Period I Coins (%)	Period II Coins (%)	Period III Coins (%)	Total Coins (%)
NORTH	**18 (5.2%)**	**25 (6.1%)**	**48 (8.8%)**	**91 (7%)**
County Durham	1 (5.6%)	0 (0%)	4 (8.3%)	5 (5.5%)
Cumbria	0 (0%)	3 (12%)	2 (4.2%)	5 (5.5%)
East Riding	6 (33.3%)	12 (48%)	18 (37.5%)	36 (39.6%)
Lancashire	0 (0%)	0 (0%)	2 (4.2%)	2 (2.2%)
North Yorkshire	10 (55.6%)	10 (40%)	20 (41.7%)	40 (44%)
Northumberland	0 (0%)	0 (0%)	2 (4.2%)	2 (2.2%)
West Yorkshire	1 (5.6%)	0 (0%)	0 (0%)	1 (1.1%)
EAST CENTRAL	**73 (21%)**	**62 (15%)**	**105 (19.2%)**	**240 (18.4%)**
Bedfordshire	23 (31.5%)	5 (8.1%)	12 (11.4%)	40 (16.7%)
Leicestershire and Rutland	3 (4.1%)	2 (3.2%)	1 (1%)	6 (2.5%)
Lincolnshire	35 (47.9%)	44 (71%)	66 (62.9%)	145 (60.4%)
Northamptonshire	7 (9.6%)	6 (9.7%)	6 (5.7%)	19 (7.9%)
Nottinghamshire	4 (5.5%)	(8.1%)	12 (11.4%)	21 (8.8%)
South Yorkshire	1 (1.4%)	0 (0%)	8 (7.6%)	9 (3.8%)
WEST CENTRAL & WALES	**19 (2.6%)**	**30 (7.3%)**	**24 (4.4%)**	**73 (5.6%)**
Avon	1 (5.3%)	6 (20%)	1 (4.2%)	8 (11%)
Cheshire	3 (15.8%)	1 (3.3%)	0 (0%)	4 (5.5%)
Derbyshire	1 (5.3%)	2 (6.7%)	4 (16.7%)	7 (9.6%)
Gloucestershire	3 (15.8%)	2 (6.7%)	7 (29.2%)	12 (16.4%)
Herefordshire	2 (10.5%)	2 (6.7%)	1 (4.2%)	5 (6.8%)
Shropshire	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Staffordshire	0 (0%)	1 (3.3%)	0 (0%)	1 (1.4%)
Wales	1 (5.3%)	6 (20%)	6 (25%)	13 (17.8%)
Warwickshire	3 (15.8%)	8 (26.7%)	1 (4.2%)	12 (16.4%)
West Midlands	0 (0%)	1 (3.3%)	1 (4.2%)	2 (2.7%)
Worcestershire	5 (26.3%)	1 (3.3%)	3 (12.5%)	9 (12.3%)
EAST ANGLIA	**127 (36.5%)**	**158 (38.4%)**	**223 (40.7%)**	**508 (38.9%)**
Cambridgeshire	23 (18.1%)	23 (14.6%)	24 (10.8%)	70 (13.8%)
Essex	10 (7.8%)	18 (11.4%)	10 (4.5%)	38 (7.5%)
Norfolk	68 (53.5%)	74 (46.8%)	116 (52%)	258 (50.8%)
Suffolk	26 (20.5%)	43 (27.2%)	73 (32.7%)	142 (28%)
SOUTH EAST	**98 (28.2%)**	**114 (28.4%)**	**125 (22.8%)**	**337 (25.8%)**
Berkshire	1 (1%)	2 (1.6%)	1 (0.8%)	4 (1.2%)
Buckinghamshire	6 (6.1%)	11 (9.6%)	11 (8.8%)	28 (8.3%)
East Sussex	3 (3%)	8 (7%)	10 (8%)	21 (6.2%)
Greater London	28 (28.6%)	31 (27.2%)	17 (13.6%)	76 (22.6%)
Hampshire	16 (16.3%)	19 (16.7%)	24 (19.2%)	59 (17.5%)
Hertfordshire	6 (6.1%)	3 (2.6%)	11 (8.8%)	20 (5.9%)
Isle of Wight	0 (0%)	1 (0.9%)	1 (0.8%)	2 (0.6%)
Kent	22 (22.4%)	27 (23.7%)	35 (28%)	84 (24.9%)
Oxfordshire	13 (13.3%)	5 (4.4%)	8 (6.4%)	26 (7.7%)
Surrey	1 (1%)	6 (5.3%)	5 (4%)	12 (3.6%)
West Sussex	2 (2%)	1 (0.9%)	2 (1.6%	5 (1.5%)
SOUTH WEST	**13 (3.7%)**	**22 (5.4%)**	**23 (4.2%)**	**58 (4.4%)**
Cornwall	1 (7.7%)	0 (0%)	1 (4.3%)	2 (3.5%)
Devon	1 (7.7%)	7 (31.8%)	0 (0%)	8 (13.8%)
Dorset	10 (76.9%)	0 (0%)	12 (52.2%)	22 (37.9%)
Somerset	0 (0%)	3 (13.6%)	3 (13%)	6 (10.3%)
Wiltshire	1 (7.7%)	12 (54.5%)	7 (30.4%)	20 (34.5%)
TOTAL COINS	**348 (26.6%)**	**411 (31.4%)**	**548 (41.9%)**	**1307**

Figure 3.14 Phase A (1066-1158) coins by region and county

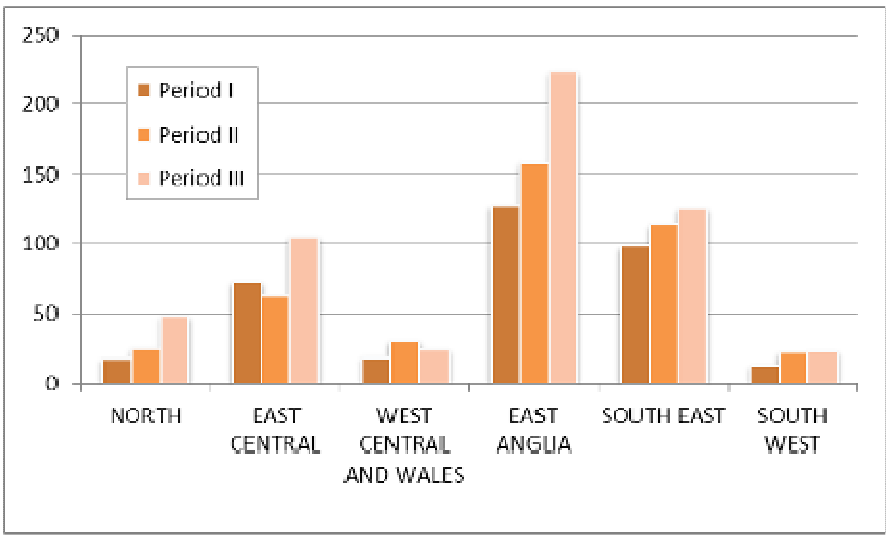


Figure 3.15 Coin totals by region in Periods I-III.

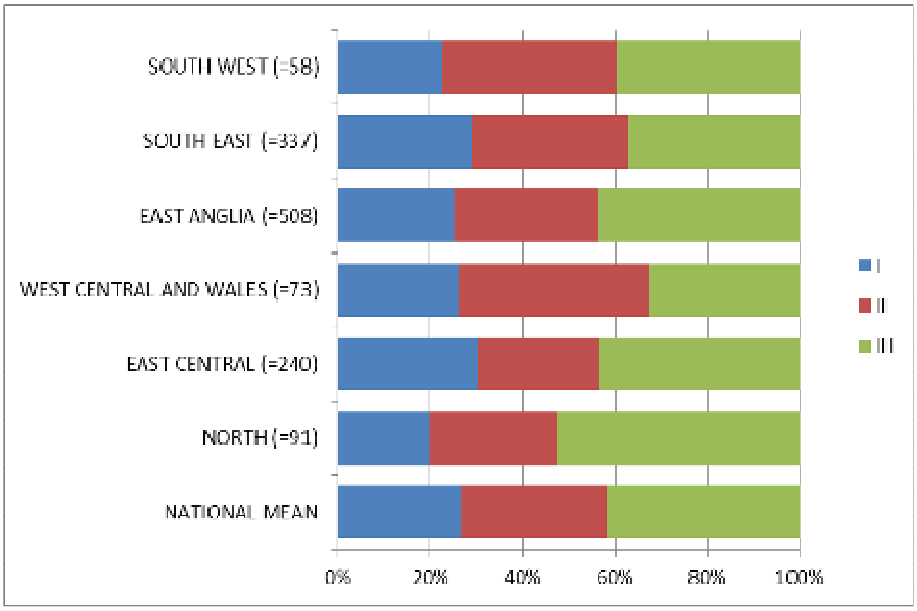


Figure 3.16 Percentage share of Period I-III coin finds by region.

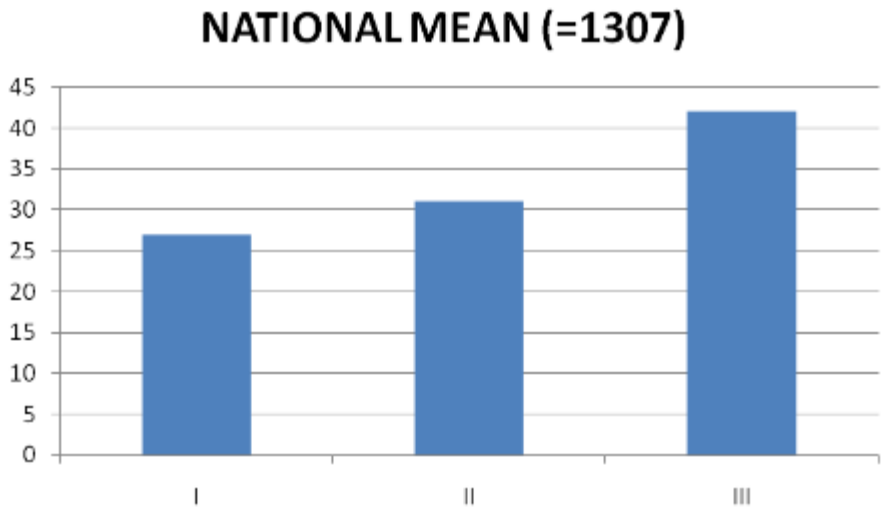


Figure 3.17 Phase A National mean

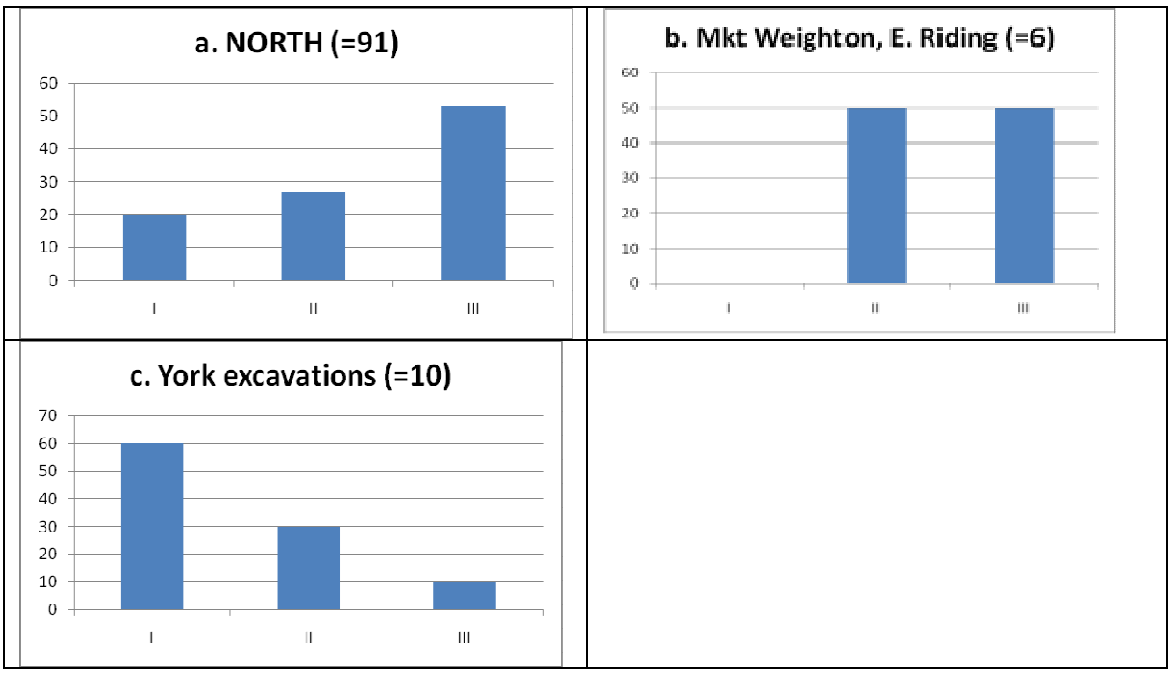
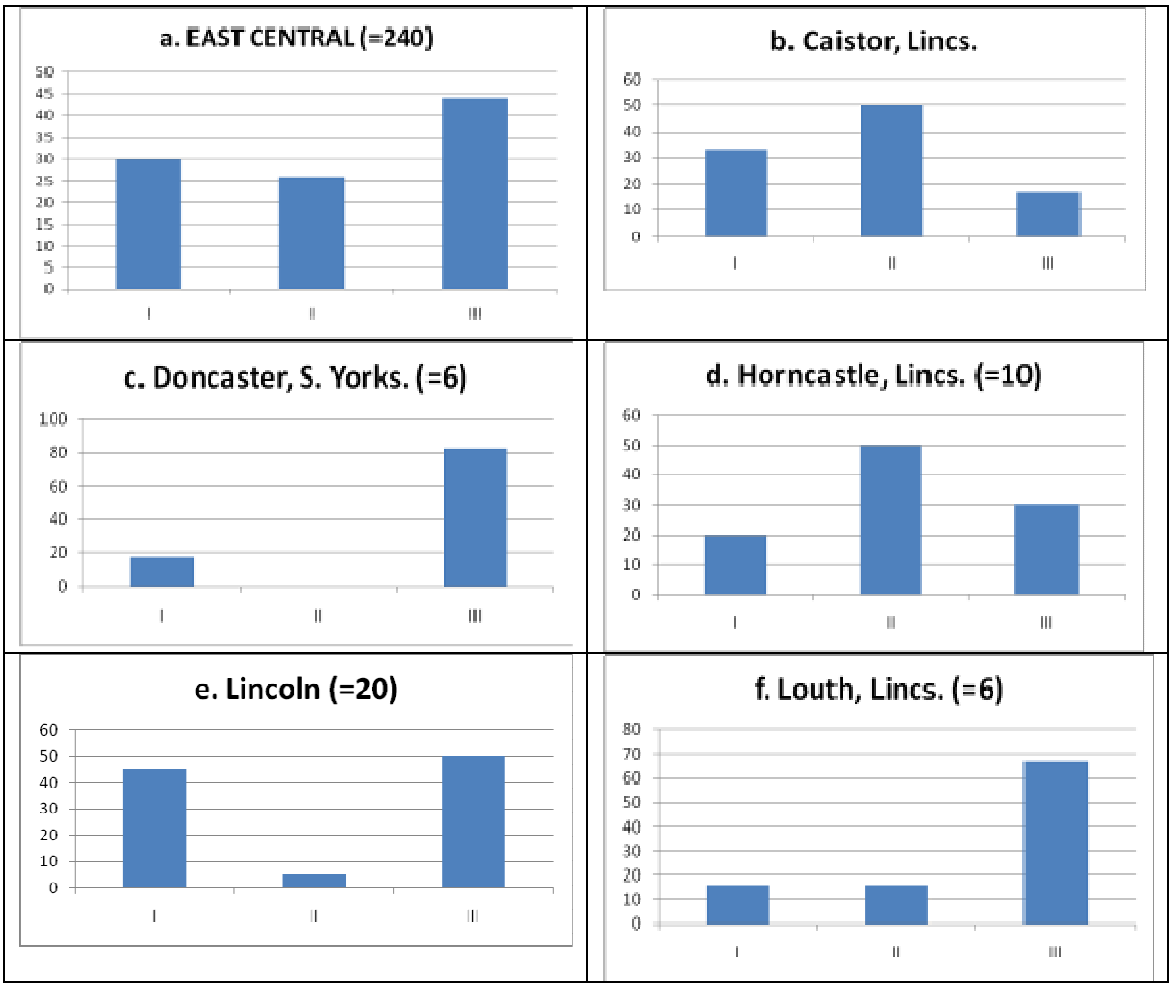


Figure 3.18 Northern regional assemblages



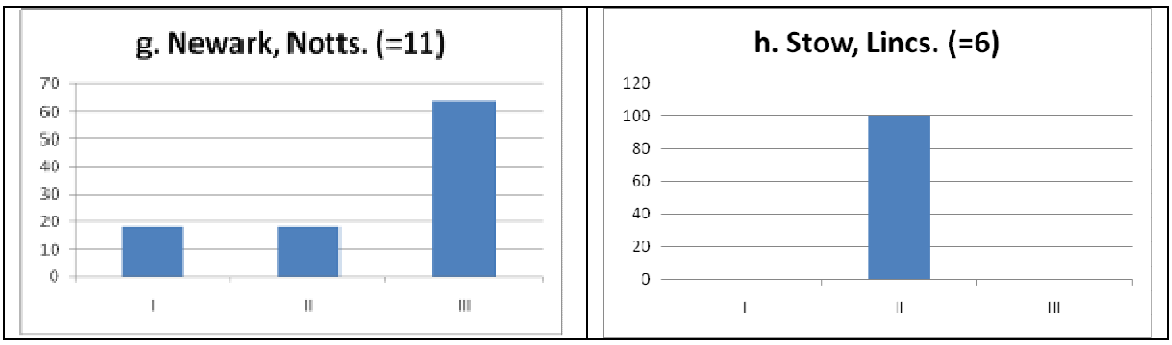


Figure 3.19 East central regional assemblages

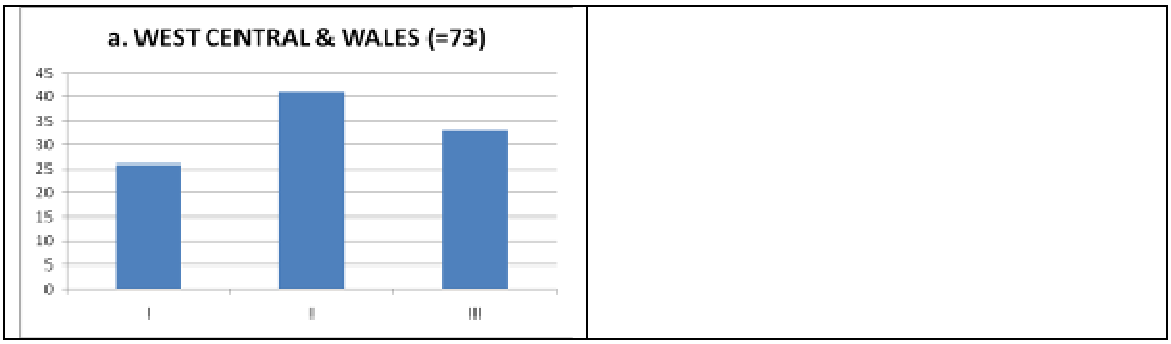
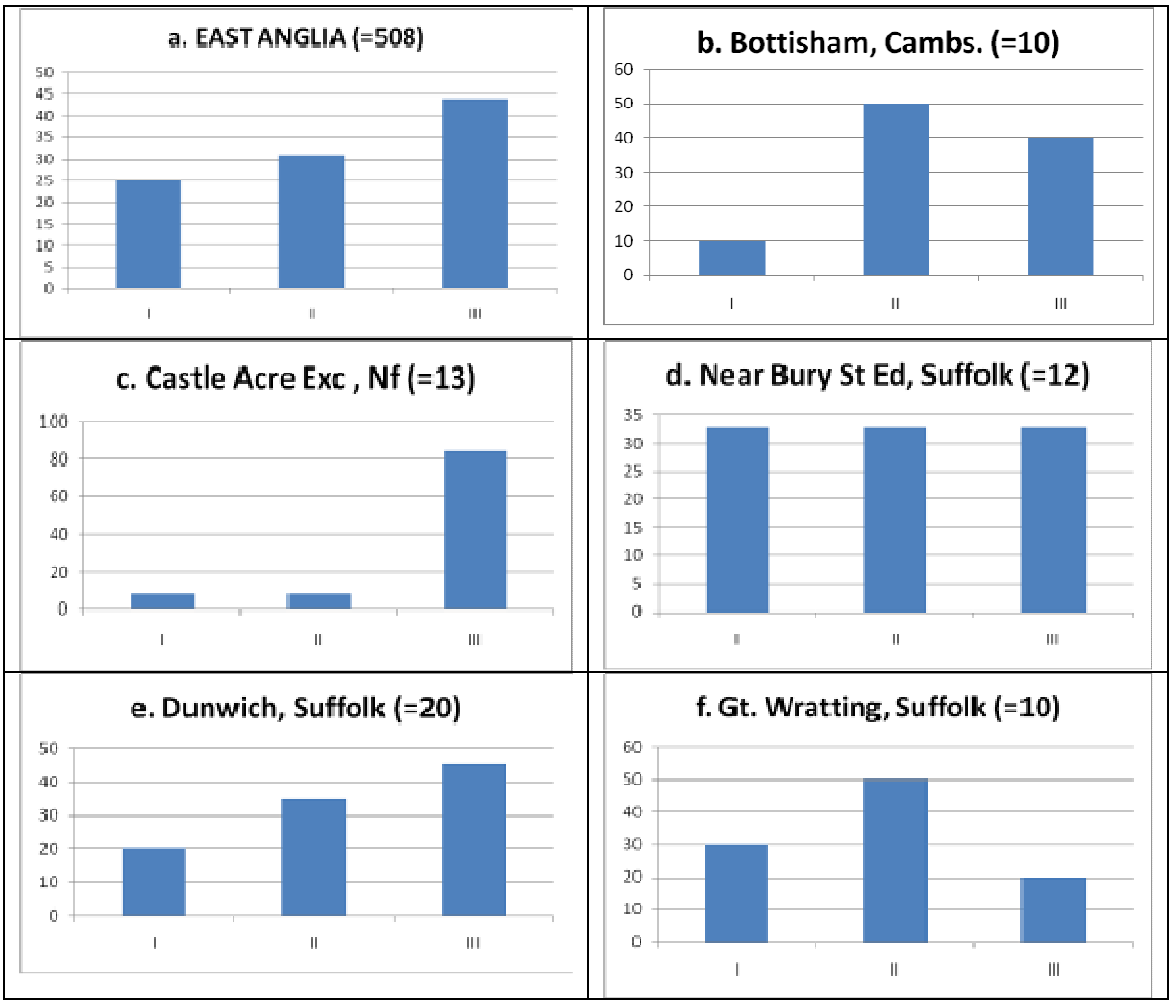


Figure 3.20 West central and Wales profile.



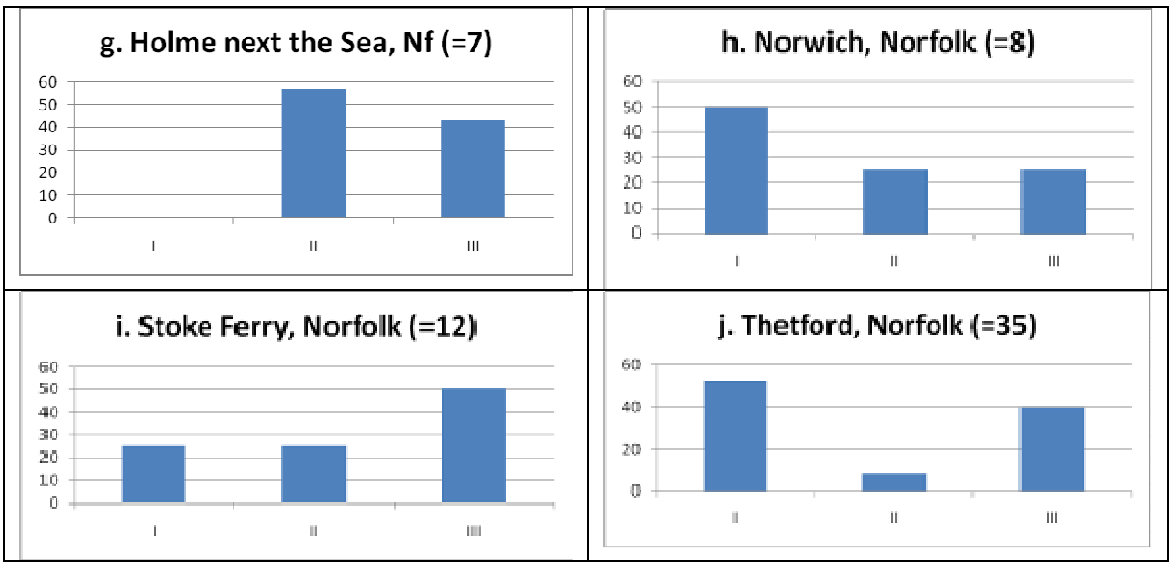
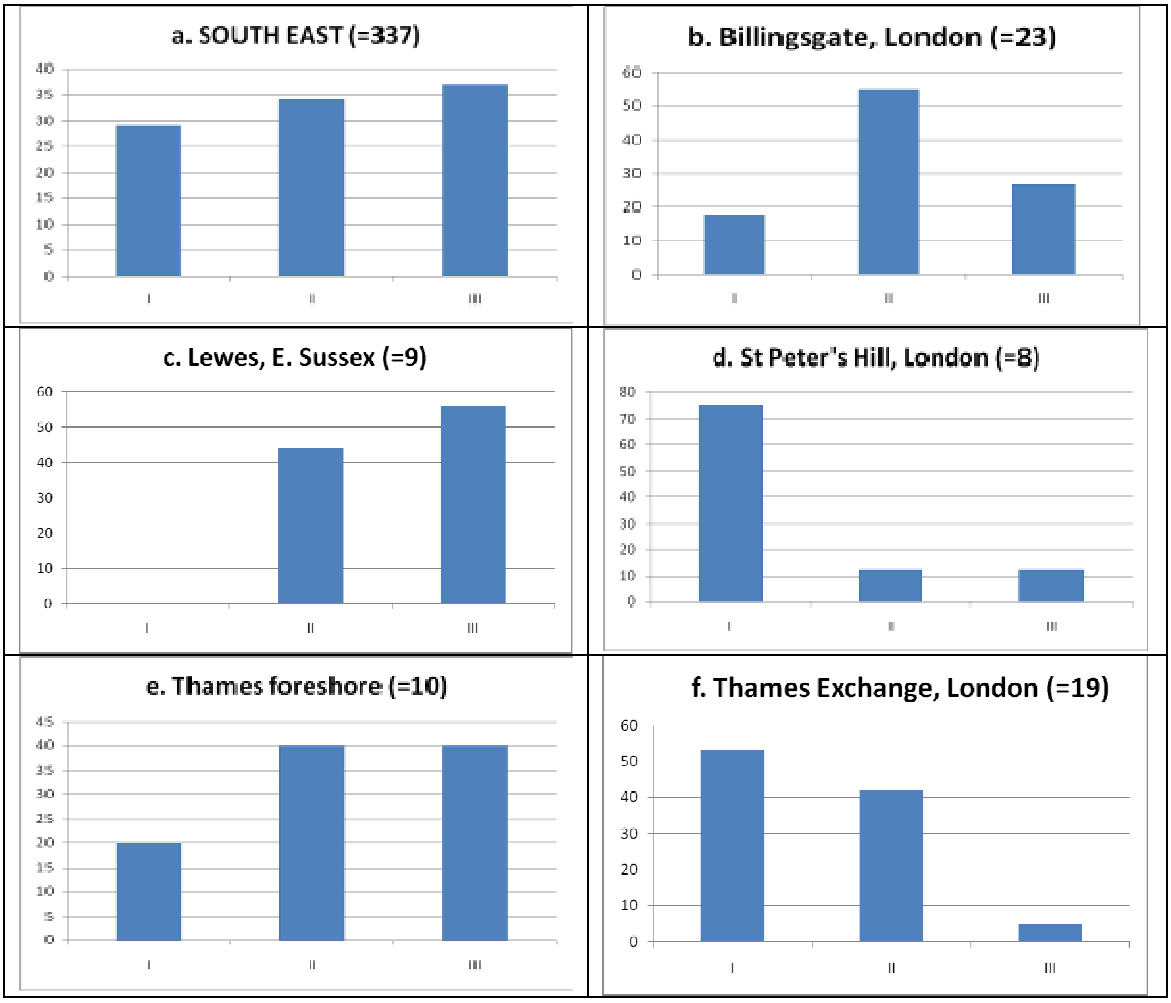


Figure 3.21 East Anglian regional assemblages



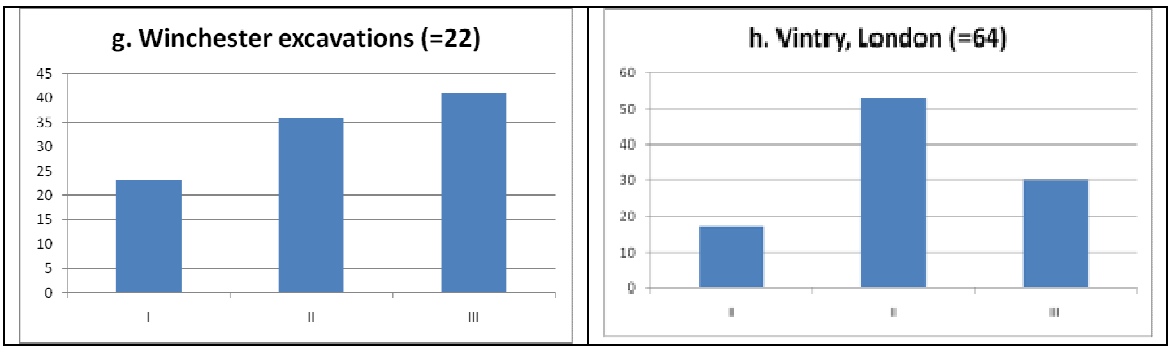


Figure 3.22 South Eastern regional assemblages.

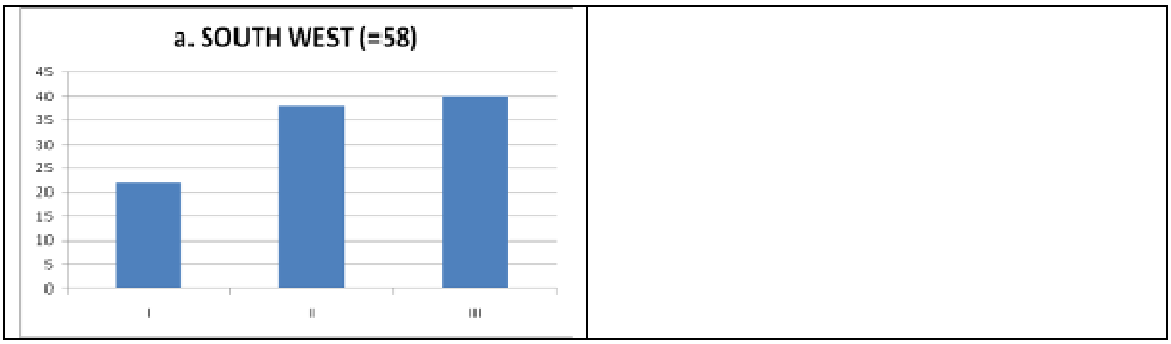


Figure 3.23 South Western profile.

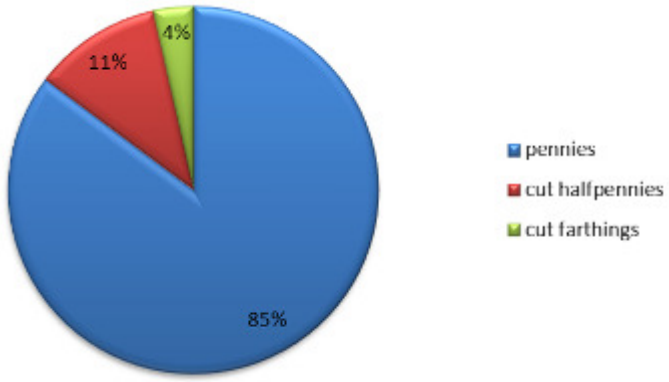


Figure 3.24 Denominational profile of Period I coins.

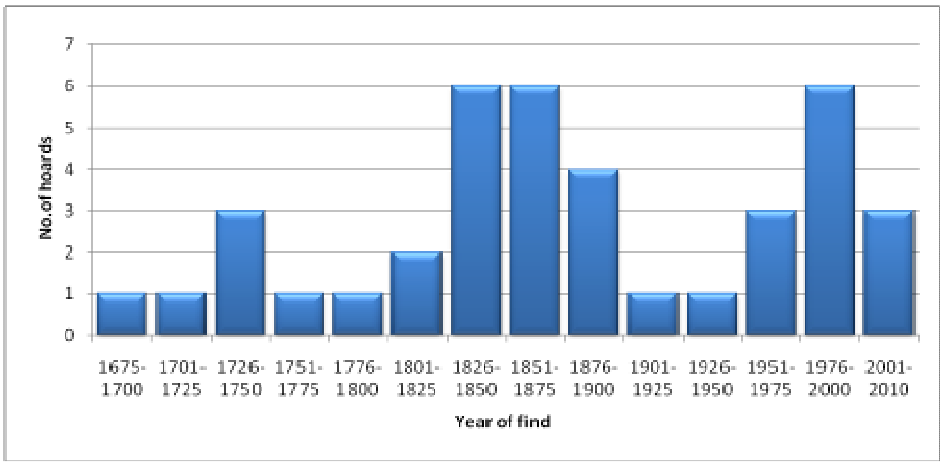


Figure 3.25 Discovery date of the 43 PI hoards recovered in England and Wales to 2009. Four hoards are not included in this table as their discovery date is unknown. Hoards must include William I or II coins to qualify for inclusion, those buried after 1066 but comprised of coins of Edward the Confessor and Harold II are omitted. Projecting to 2025 at the same rate results in 7-8 hoards.

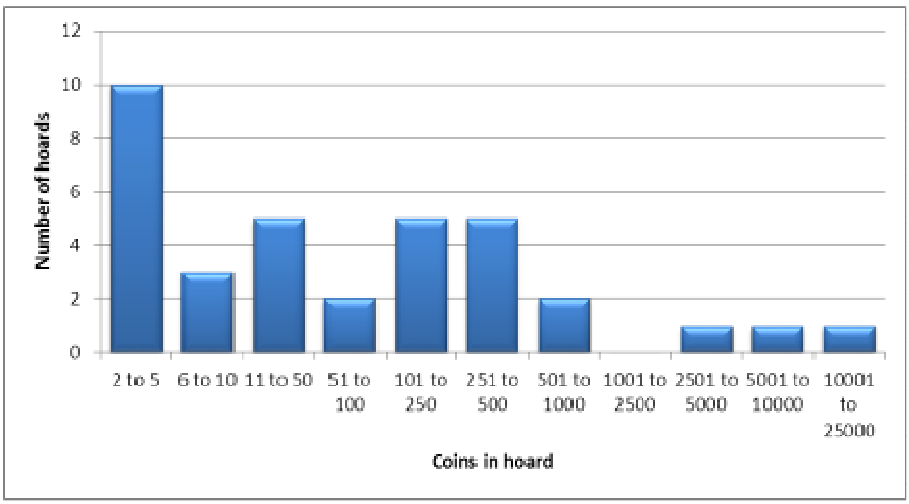


Figure 3.26 Profile of Period I hoards by total number of coins present. A number of the 2-5 coins consist of just two coins which have the potential to be pairs of contemporary single finds from Bradenham, Cranwich and Wallingford.

No.	***Location***	***Date***	***Composition***
A8	Oulton, Staffs.	1795	?4000 pennies, no fractions.
A10	York, Bishophill 2	1882	*c.*50-60 pennies, no fractions.
A17	Corringham, Lincs.	1994	100 pennies, no fractions.
A22	London, St Mary-at-Hill church	1774	*c.*300-400 'Also a number of cut halfpennies and farthings'.
A25	Scaldwell, Northants.	1914	264 coins. 'pennies and cut halfpennies'.
A29	Abergavenny, Monmouthshire	2002	199 pennies, no fractions.
A31	Beauworth, Hants.[14]	1833	8-12,000 coins. Of 6,282 recorded 0.29% were cut halfpennies
A38	Tamworth, Staffs.	1877	*c.*300 pennies, no fractions.

Figure 3.27 Denominational composition of selected Period I hoards.

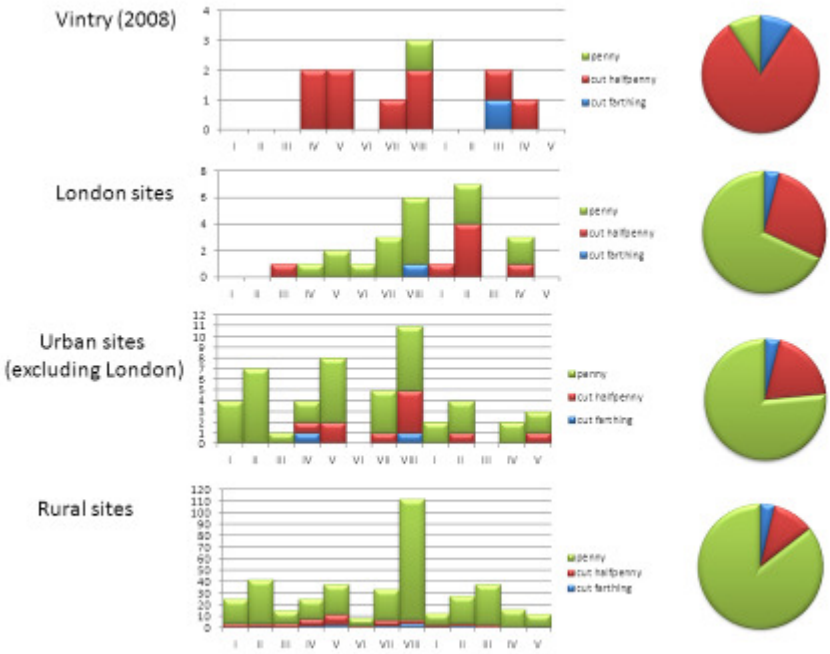


Figure 3.28 Period I coins from selected urban sites compared with rural data. Note the differences in fractional profile across different site types. No non-urban excavated sites have produced more than ten Period I coins so it is not as yet possible to contrast this with a monastic, castle or palace site, for example.

[14] The full content of this antiquarian find is unknown.

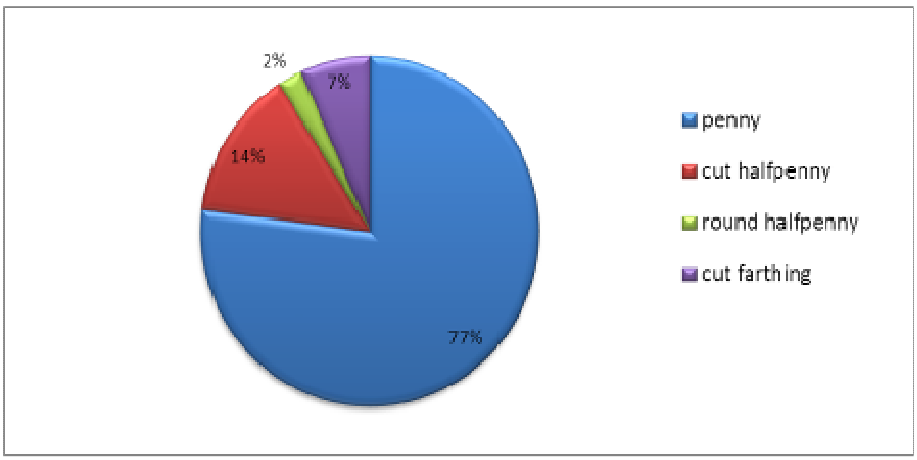


Figure 3.29 Denominational profile of Period II coins.

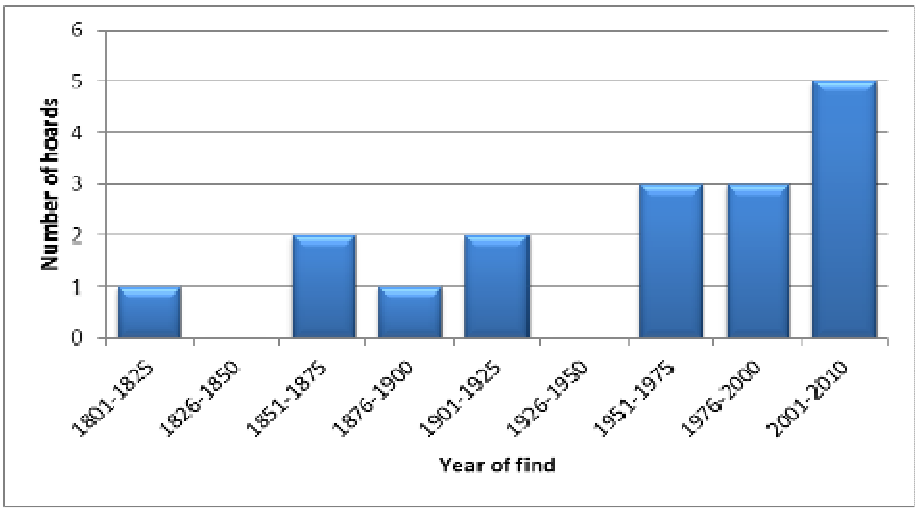


Figure 3.30 Discovery date of the 17 Period II hoards recovered in England and Wales to 2009.

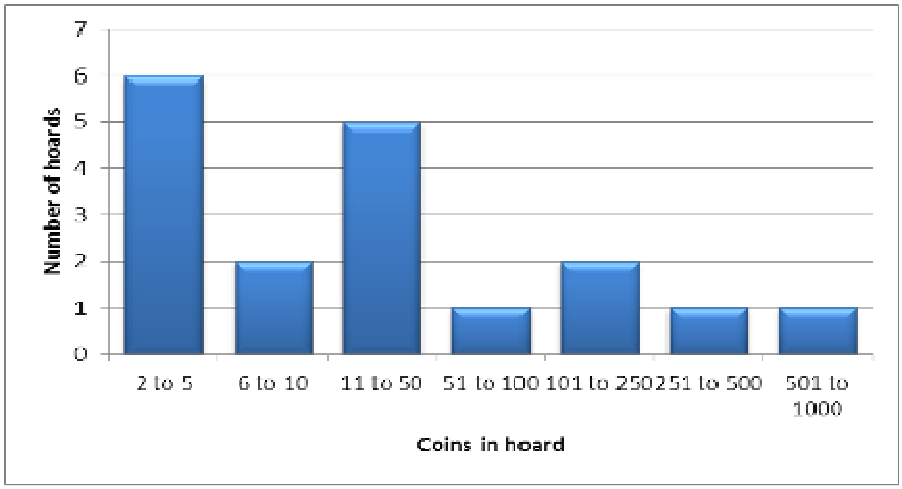


Figure 3.31 Profile of Period II hoards by total number of coins present.

No.	*Location*	*Date*	*Composition*
B5	Shillington, Beds.	1871	*c.*250 'Norman pennies'
B7	Llantrithyd, Vale of Glamorgan,	1962-3	8 pennies, no fractions.
B9	Mansfield Woodhouse, Notts.	1991	75 coins, 1 cut-halfpenny (1.3%).
B13	Lincoln (Malandry), Lincs.	1971-2	744 'pennies and cut-halfpennies'.
B15	Battle, East Sussex	*c.*1860	13 pennies, no fractions.
B17	Knaresborough area, Yorkshire	2008-9	168 pennies, 7 cut-halfpennies (4%).

Figure 3.32 Denominational composition of selected Period II hoards.

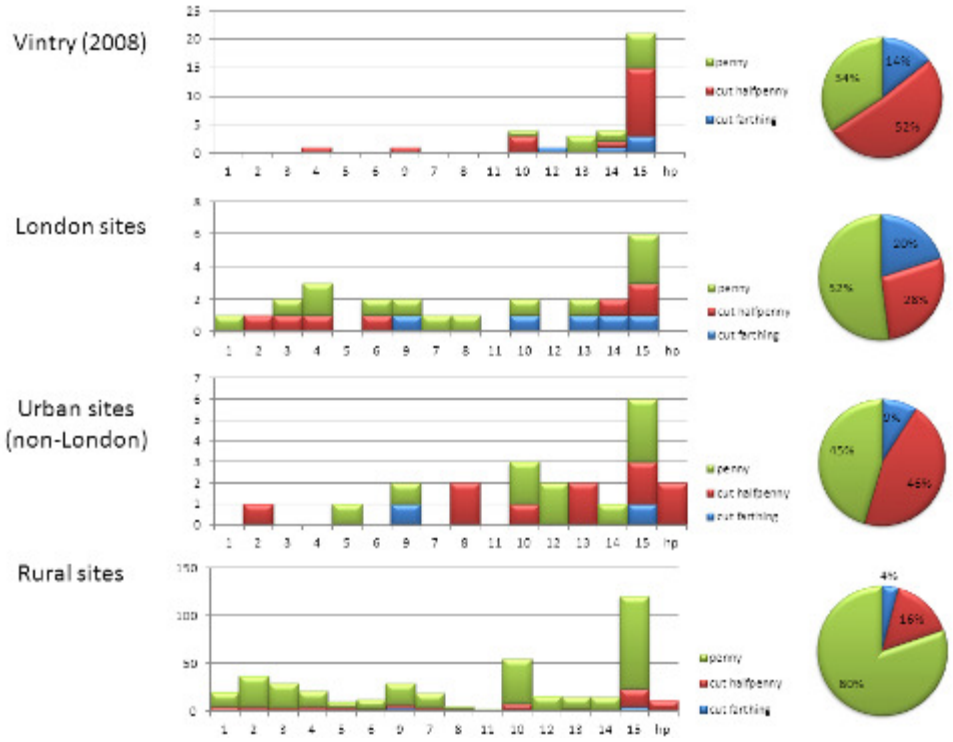


Figure 3.33 Period II coins from selected urban sites compared with rural data.

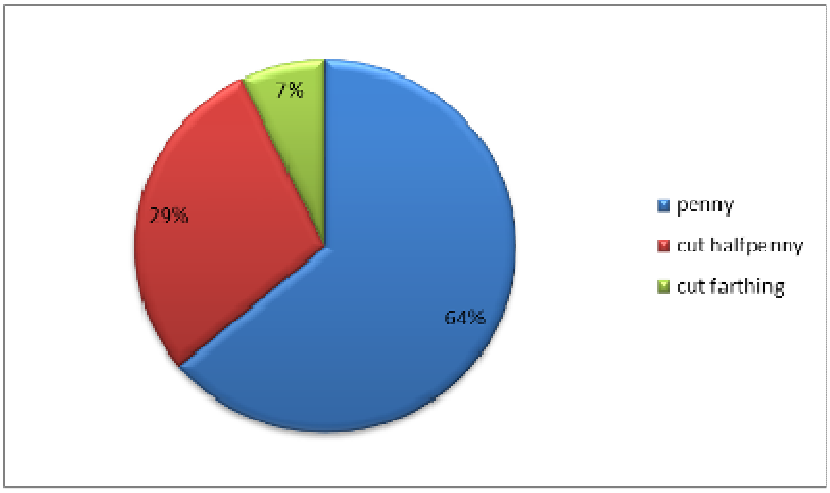


Figure 3.34 Denominational profile of Period III coins.

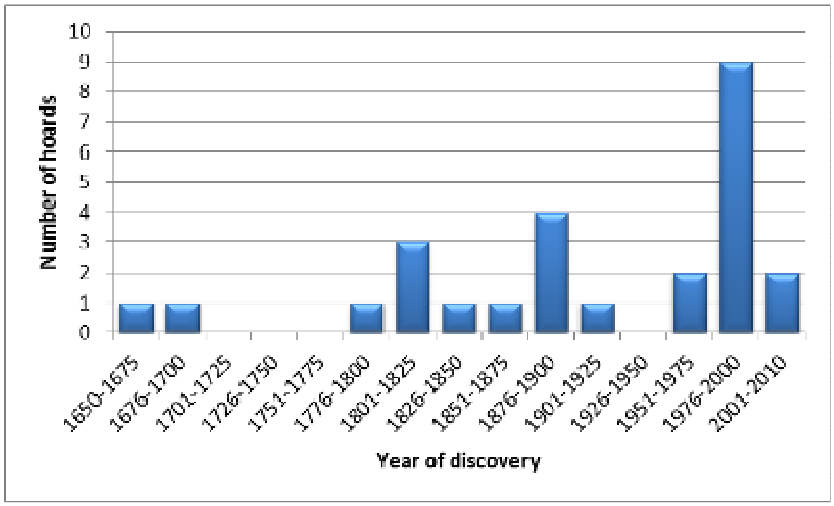


Figure 3.35 Discovery date of the 26 Period III hoards recovered in England and Wales to 2009.

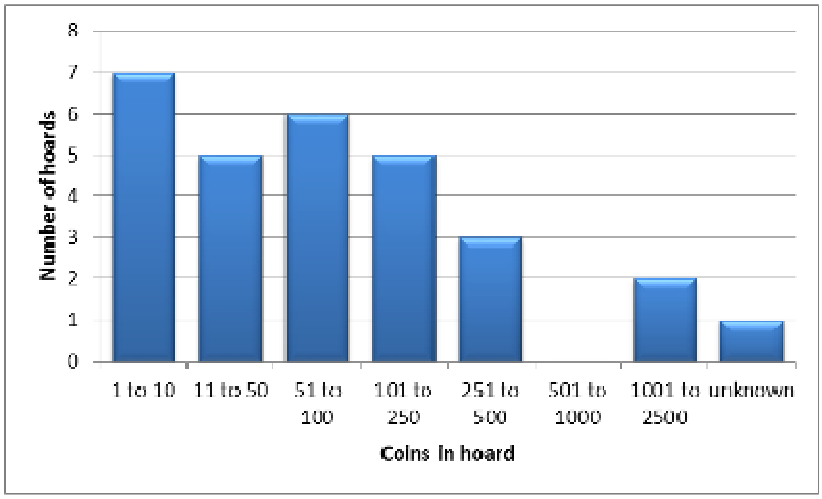


Figure 3.36 Profile of Period III hoards by total number of coins present.

No.	*Location*	*Date*	*Composition*
C9	South Kyme, Lincs.	<1922	334 'pennies and cut coins'.
C10	Watford, Herts.	1818	779 listed; 33 cut halfpennies (4.2%).
C14	Prestwich (Bury), Lancs.	1972	1006; 59 cut halfpennies (5.9%).
C15	Linton, Kent	1883	89 listed; 20 cut-halfpennies, 4 cut-farthings (27%).
C16	Sheldon, Derbs.	1867	102 coins, at least 6 cut-halfpennies (5.9%).
C17	Ashby-de-la-Zouche, Leics.	1788	*c.*450 coins; 'upwards of 60 coins cut into halves, about a dozen were quarters' (*c.*16%)
C20	Box, Wilts.	1993-4	104 coins; 25 cut halfpennies; one cut-farthing (25%).
C21	Coed-y-Wennalt, Glam.	1980	102; 7 cut-halfpennies (6.9%).

Figure 3.37 Denominational composition of selected Period III hoards.

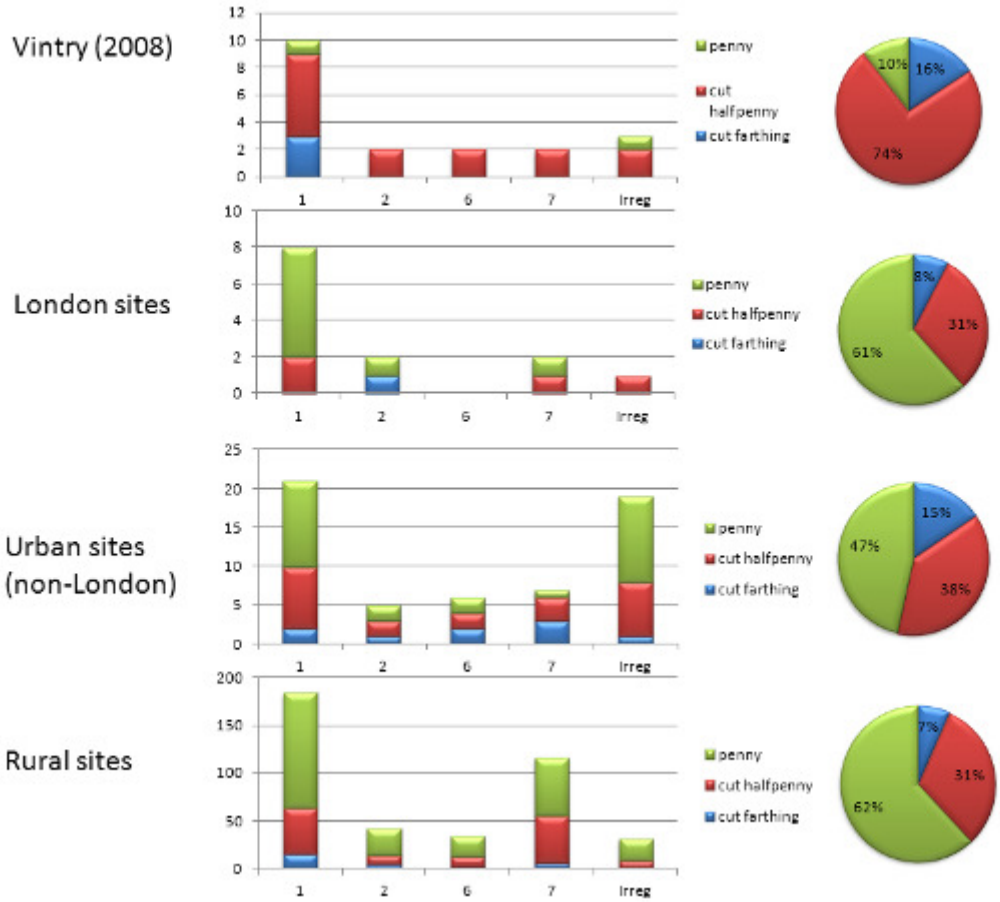


Figure 3.38 Period III coins from urban sites compared with rural data.

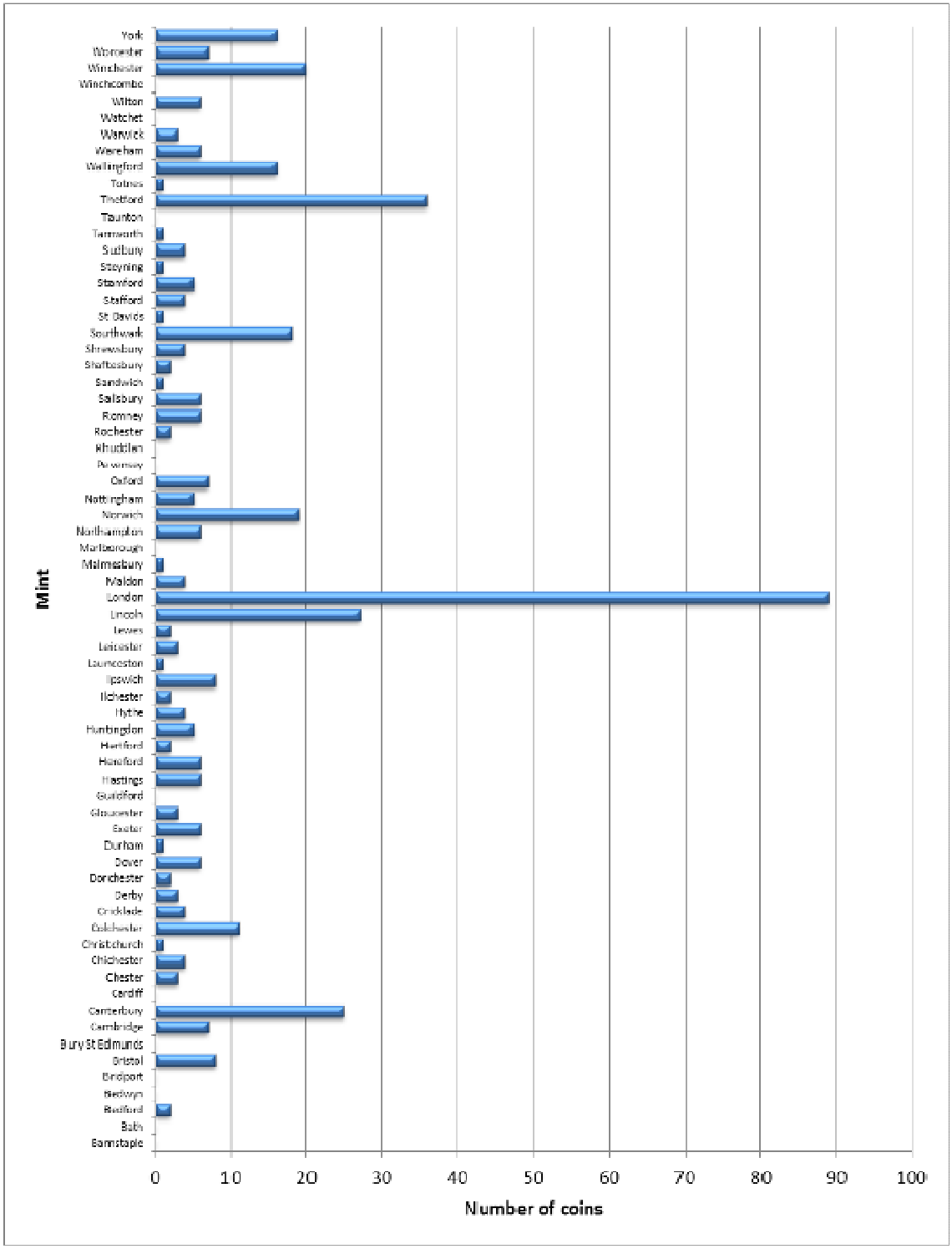


Figure 3.39 Period I coins by mint. London clearly dominates while a group of other mints in large towns led by Thetford and Lincoln provide a second tier of production. 45 small mints account for less than 10 coins each.

MINT	BMC 1	BMC 2	BMC 3	BMC 4	BMC 5	BMC 6	BMC 7	BMC 8	BMC 1	BMC 2	BMC 3	BMC 4	BMC 5	uncertain	Total
Bedford								1			1				2
Bristol					2			4			1	1			8
Cambridge			1	2			1	3							7
Canterbury	2	1		1	4	2	1	5	1	1	3	2	1	1	25
Chester		1						1	1						3
Chichester				1				2	1						4
Christchurch							1								1
Colchester							1	3		5			2		11
Cricklade				2				1		1					4
Derby	1		1				1								3
Dorchester						1				1					2
Dover					1		3	1	1						6
Durham										1					1
Exeter			2				1	2		1					6
Gloucester			1	1				1							3
Hastings	2							1		1	2				6
Hereford		1				1		3					1		6
Hertford		1			1										2
Huntingdon	1	1					1	1				1			5
Hythe					2			2							4
Ilchester										1	1				2
Ipswich		2	1	1	1	1	1			1					8
Launceston					1										1
Leicester			1					1						1	3
Lewes								2							2
Lincoln	1	2	3	4	2		3	5	1	1	4		1		27
London	2	11	1	7	13	6	16	13	4	6	9	1			89
Maldon					1			1		1	1				4
Malmesbury			1												1
Northampton			2	3							1				6
Norwich	1	3	1	1	2		2	1		2	3	1	2		19
Nottingham	1		2		1							1			5
Oxford	1	3		1				1					1		7
Rochester										2					2
Romney	4					1							1		6
Salisbury						1		4			1				6
Sandwich					1										1
Shaftesbury						1		1							2
Shrewsbury		1		1							1	1			4
Southwark					1	1		9	1	2		3	1		18
St Davids								1							1
Stafford		1						3							4
Stamford	1	1	1					2							5
Steyning												1			1
Sudbury								2			1	1			4
Tamworth									1						1
Thetford	3	2	1	7	6		3	9	1	2	1		1		36
Totnes										1					1
Wallingford	2	3	1	1	1	1	1	5				1			16
Wareham				1		1	2	2							6
Warwick				1	1					1					3
Wilton		2						3						1	6
Winchester	1			1	1			12	1		2		1	1	20
Worcester	1		2	1				2		1					7
York	1	8		1	2		1							3	16
uncertain	4	5	1	8	15	2	3	18	3	7	6	5	3	5	85
TOTAL	29	49	23	46	59	19	42	128	16	39	38	19	15	12	534

Figure 3.40 Mint and type breakdown of Period I coins in the dataset.

Rank	EMC 1066-1100			Metcalf 1998 (973-1086)	
1	London	–	20%	London	23%
2	Thetford	↑	8%	Lincoln	12%
3	Lincoln	↓	6%	York	8%
4	Canterbury	↑	6%	Stamford	5%
5	Winchester	↑	4%	Thetford	5%
6	Norwich	↑	4%	Winchester	4%
7	Wallingford	↑	4%	Canterbury	3%
8	York	↓	4%	Norwich	3%
9	Southwark	n/a	4%	Chester	3%
10	Colchester (+5 others)	n/a	2%	Wallingford	3%

Figure 3.41 Top ten ranked mints in Period I compared with figures from Metcalf (1998).

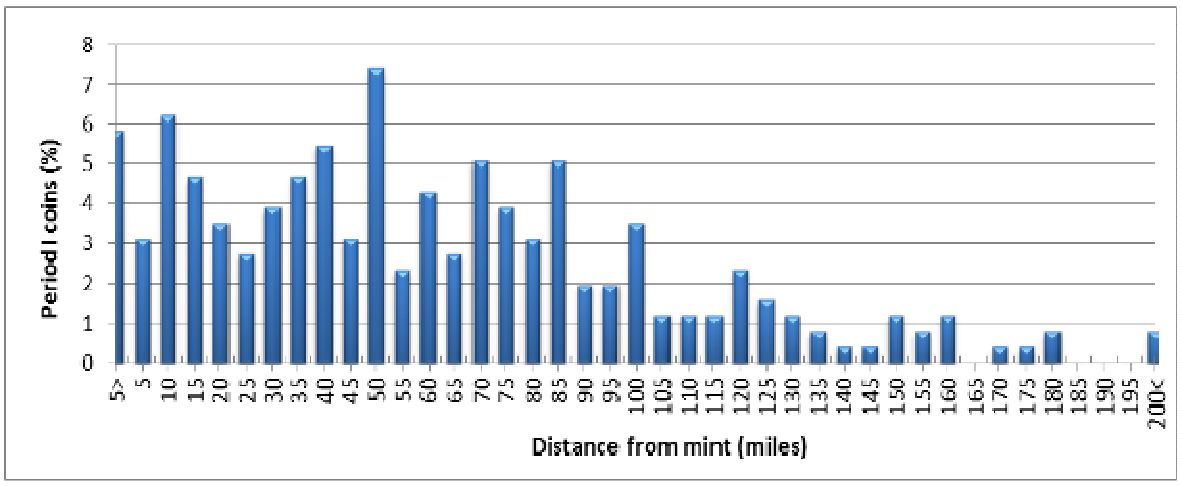


Figure 3.42 Distance travelled from mint by legible Period I coins (∑=257 coins).

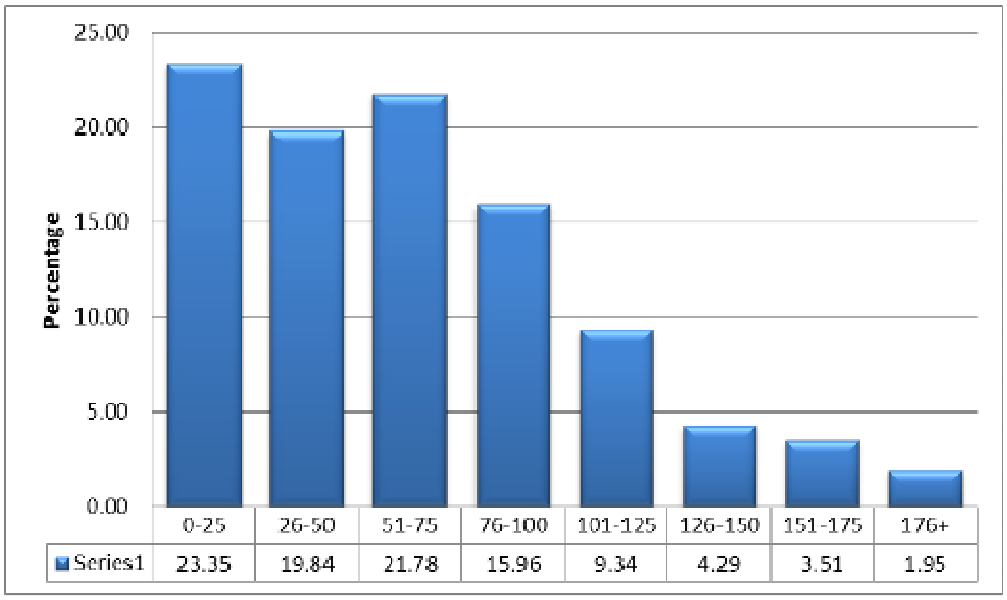


Figure 3.43 Distance travelled from mint by legible Period I coins by 25 miles increments.

Mint	***1-50 miles***	***51-100 miles***	***101-150 miles***	***151+ miles***
London	22 (40%)	27 (49%)	5 (9%)	1 (1.8%)
Thetford	19 (70.4%)	8 (29.6%)	-	-

Figure 3.44 Distance from source of selected Period I mints' coins.

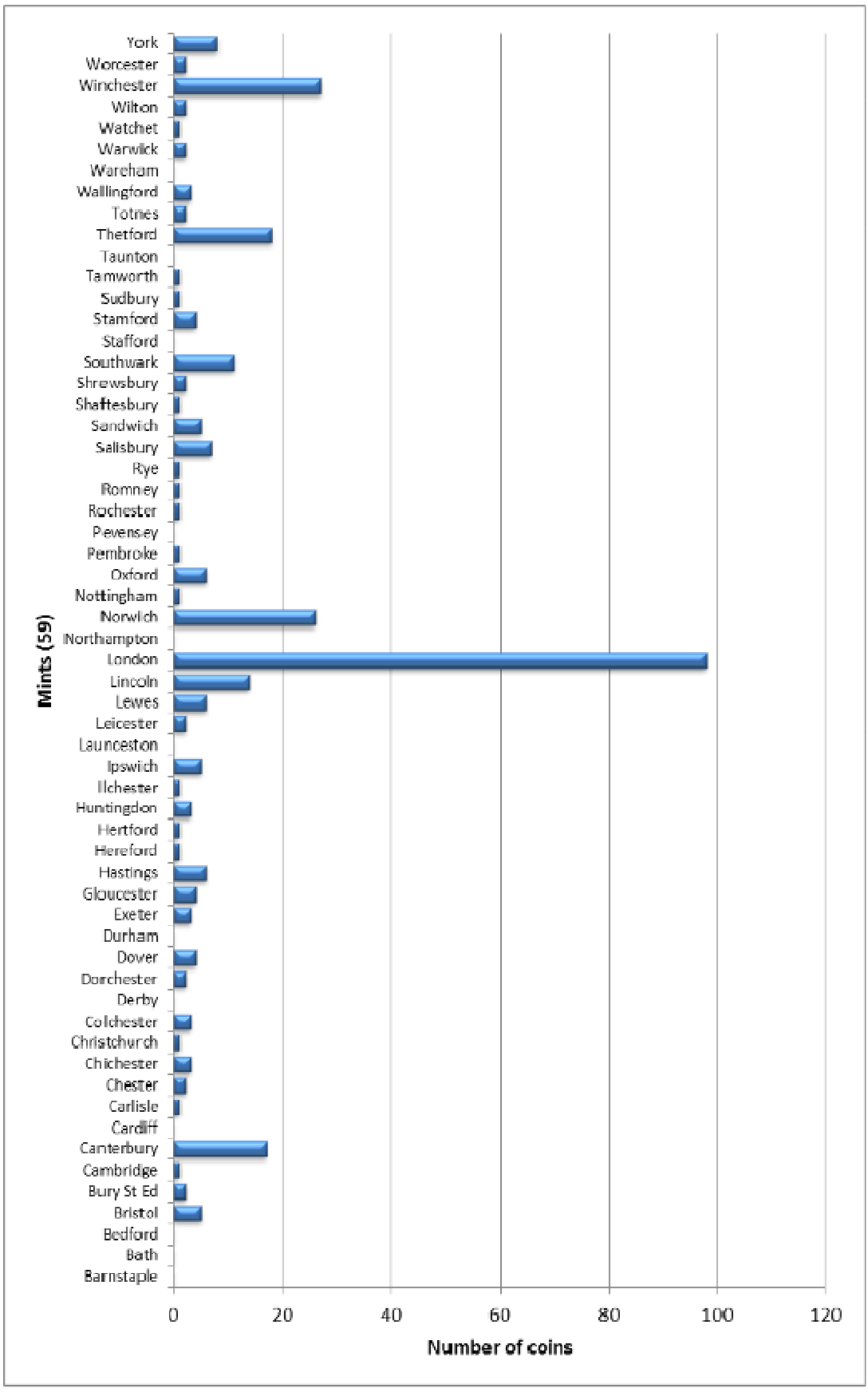


Figure 3.45 Period II coins by mint.

MINT	1	2	3	4	5	6	9	7	8	11	10	12	13	14	15	Hp	unc.	Total
Barnstaple		0											0	0				0
Bath													0	0				0
Bedford									0		0		0	0				0
Bristol		1	1	1	0		1			0	0	0	0	0	1			5
Bury St Ed								0			0		1	0	1			2
Cambridge					0	0							1					1
Canterbury	1	2	0	1	1	1	0	0		0	3	0	0	2	6		1	18
Cardiff										0	0			0				0
Carlisle														0	1			1
Chester			0					0					1	0	1			2
Chichester				0			1		0	0	2	0	0	0				3
Christchurch		0						0						1				1
Colchester	2		0	1				0			0		0	0				3
Derby													0	0				0
Dorchester								1				0	0	1				2
Dover			1				2				1							4
Durham																		0
Exeter				1							1				1			3
Gloucester											1				3			4
Hastings	0	0	0	1	1		1	1		0	1	1		0				6
Hereford						1			0	0	0		0	0	0			1
Hertford		1																1
Huntingdon		1	1								0	1	0	0				3
Ilchester											0	1						1
Ipswich	0		1	1	1		1				0		1	0	0			5
Launceston			0			0					0			0				0
Leicester		0						0			1		0	1				2
Lewes		2			1			1			0	0	1	0				5
Lincoln	2	1		0	2	0	0	1		0	5	0	0	0	1	1		13
London	5	9	3	4	0	3	8	4	2	0	15	1	2	4	38			98
Northampton	0	0						0			0	0	0	0	0			0
Norwich	1	2	5	0	0		1	0		1	0	4	3	1	5	3		26
Nottingham		0					1	0					0	0				1
Oxford	0	2		1			0	1	1	0	0			0	0	1		6
Pembroke											1			0	0			1
Pevensey							0				0			0				0
Rochester	0							0			0			1				1
Romney									1	0			0	0				1
Rye												1						1
Salisbury	1	0	0	1		1					1	2	1	0				7
Sandwich	1	0		0		1	2	0		0		0	0	0	0	1		5
Shaftesbury										0	1	0	0	0				1
Shrewsbury				1							0	1	0	0				2
Southwark	1	4	1	0		1	1	0	0	0	1	0	0	2				11
Stafford											0		0					0
Stamford	0	2	0		0	0		0		0	1	1		0				4
Sudbury			1		0			0			0		0	0	0			1
Tamworth		?											1	0				1
Taunton														0				0
Thetford	2	0	3	1	1	1	0	0	0	0	2	2	4	1	1			18
Totnes	0					0			1			1						2
Wallingford	0	1	0	0	0				0		2	0	0	0				3
Wareham			0		0	0					0		0	0				0
Warwick	0				m			1			1		0	0				2
Watchet														1				1
Wilton		1	0		0	1				0	0	0		0				2
Winchester	1	1	2	0	1	1	5	2	0	0	1	1	0	0	10	2		27
Worcester							1	0			0		1	0				2
York	0	0	1	1			0	0	0	0	2	0	0	0	2	1		7
Uncertain	4	9	10	8	5	2	7	9	3	1	17	1	4	5	62	1	7	148
TOTAL	21	39	30	23	13	13	32	21	8	2	60	18	21	20	133	10	8	464

Figure 3.46 Mint and type breakdown of Period II coins in the dataset.

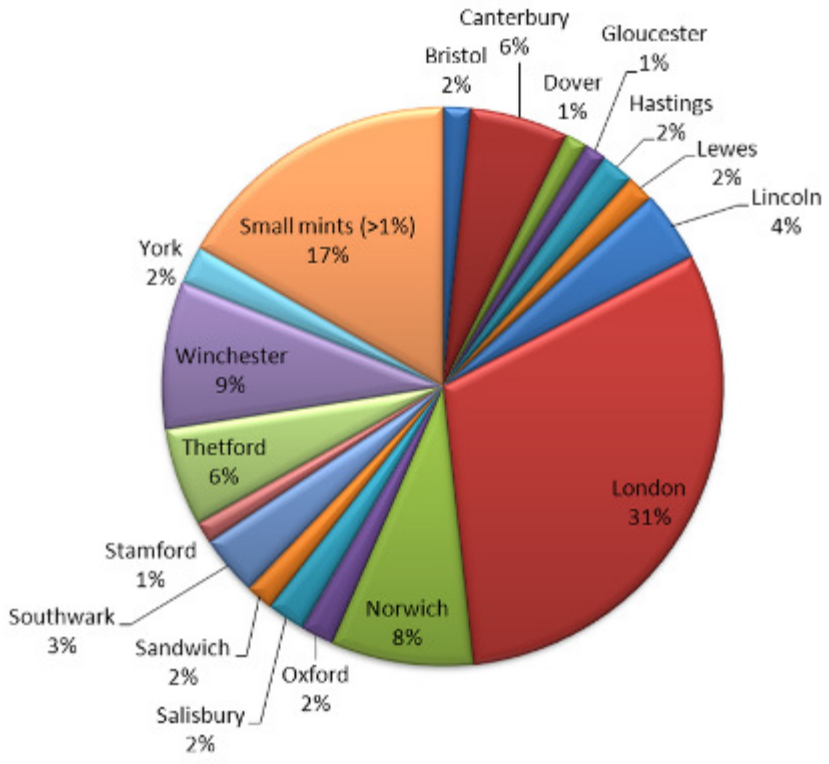


Figure 3.47 Mints

Rank	Period II			Period I	
1	London	–	30%	London	20%
2	Winchester	↑	9%	Thetford	8%
3	Norwich	↑	8%	Lincoln	6%
4	Thetford	↓	6%	Canterbury	5%
5	Canterbury	↓	6%	Winchester	4%
6	Lincoln	↓	4%	Norwich	4%
7	Southwark	↑	3%	Wallingford	4%
8	York	-	2%	York	4%
9	Oxford	↑	2%	Southwark	4%
10	Hastings (+4 others)	↑	2%	Colchester	2%

Figure 3.48 Top ten ranked mints in Period II compared with Period I.

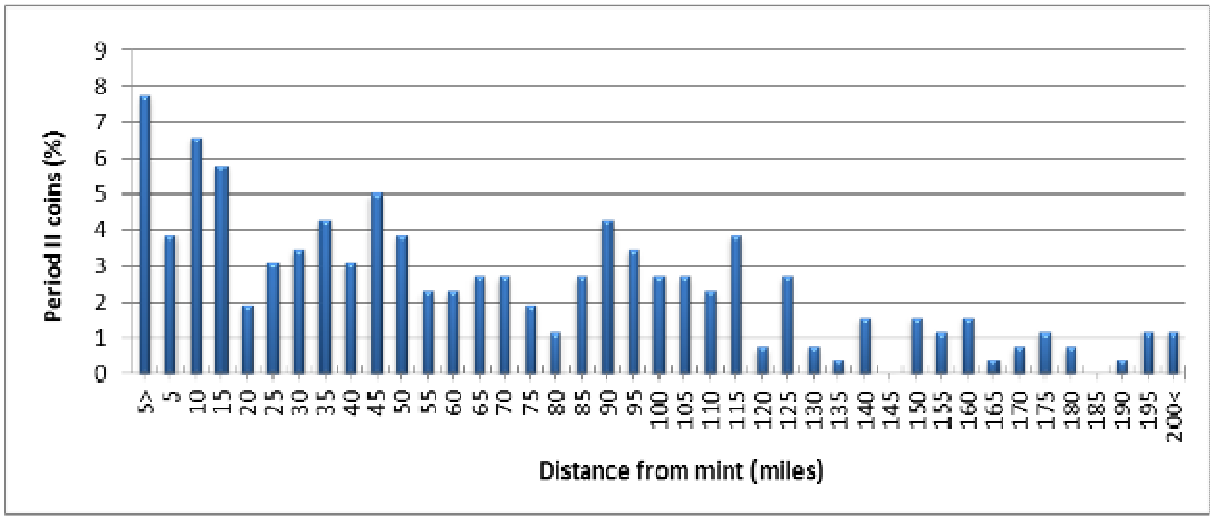


Figure 3.49 Distance travelled from mint by legible Period II coins (∑=259 coins).

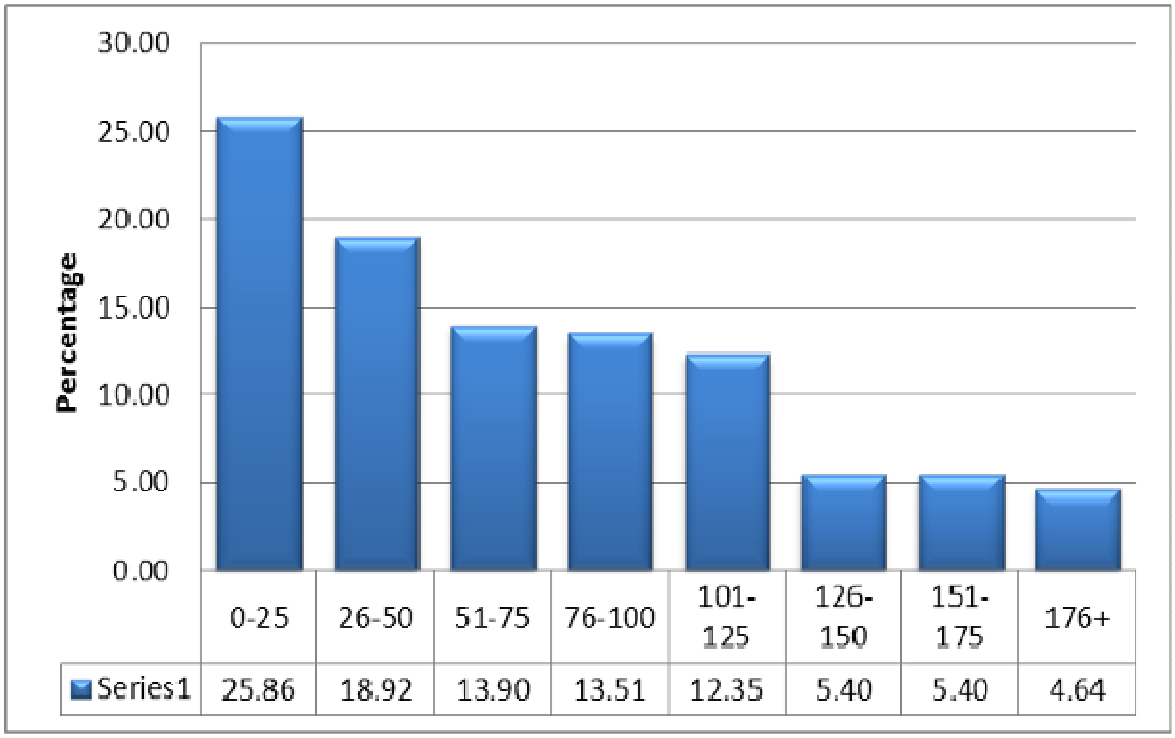


Figure 3.50 Distance travelled from mint by legible Period II coins by 25 miles increments.

Mint	***1-50 miles***	***51-100 miles***	***101-150 miles***	***151+ miles***
London	31 (40.8%)	25 (32.9%)	15 (19.7%)	5 (6.6%)
Norwich	20 (100%)	-	-	-
Winchester	8 (42.1%)	6 (31.6%)	4 (21.1%)	1 (5.3%)

Figure 3.51 Distance from source of selected Period II mints' coins.

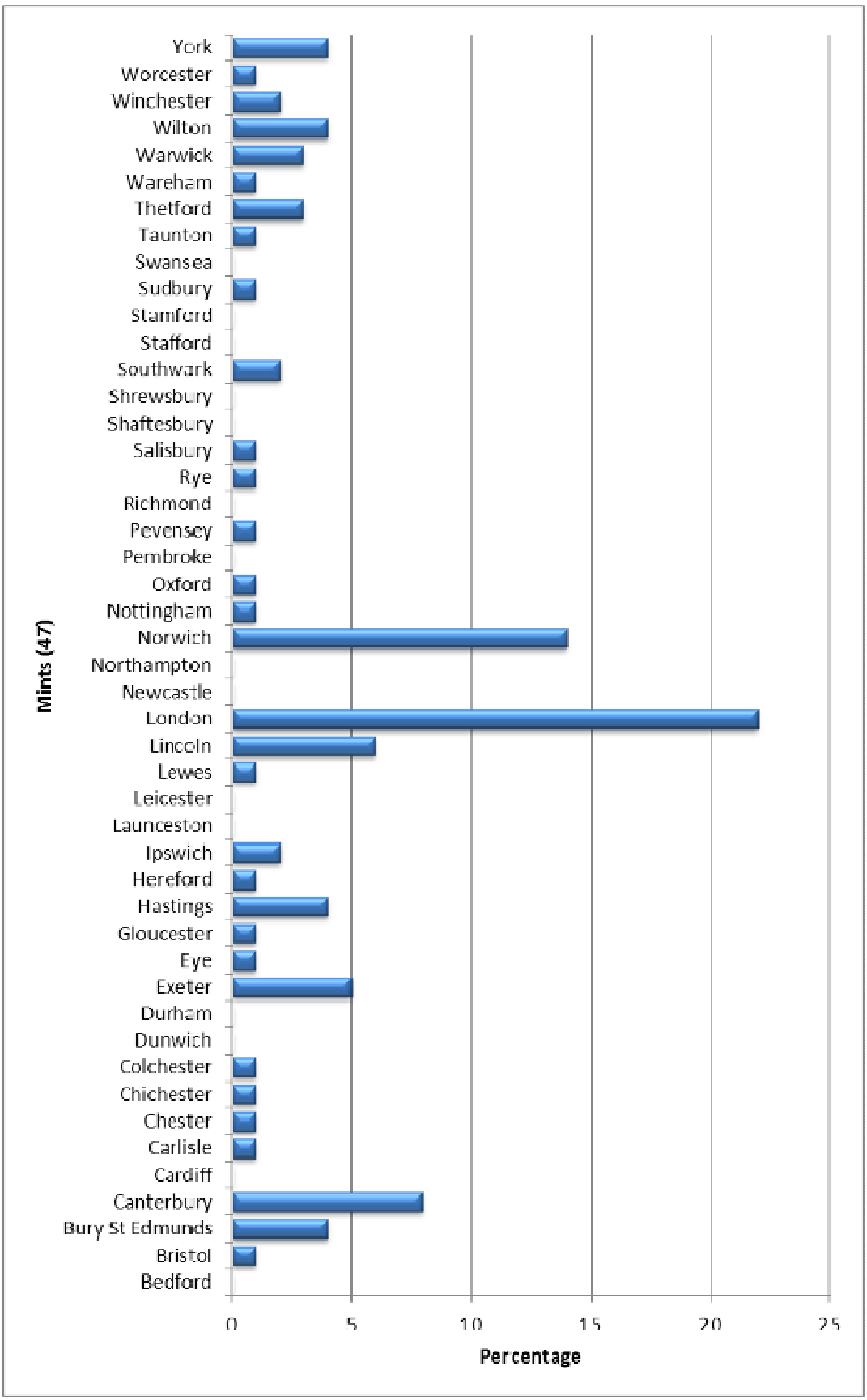


Figure 3.52 Stephen BMC I coins by mint

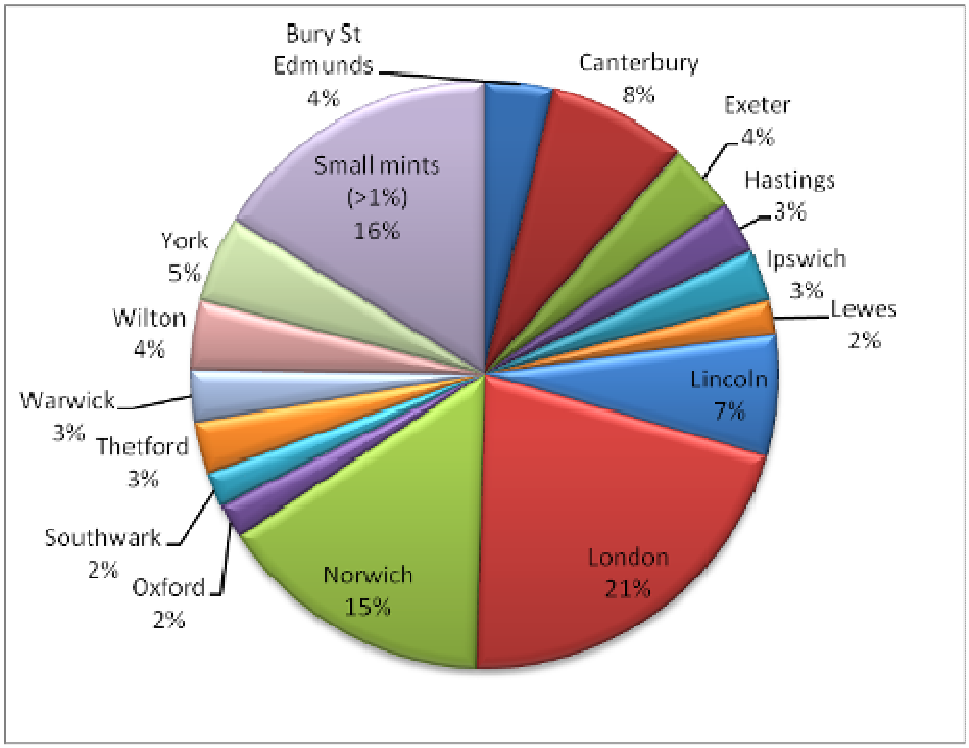


Figure 3.53 Mint attribution of BMC I coins in the dataset.

Rank	Period III BMC I			Period II	
1	London	–	21%	London	30%
2	Norwich	↑	15%	Winchester	9%
3	Canterbury	↑	8%	Norwich	8%
4	Lincoln	↑	7%	Thetford	6%
5	York	↑	5%	Canterbury	5%
6	Bury St Edmunds	↑	4%	Southwark	4%
7	Exeter	↑	4%	Lincoln	4%
8	Wilton	↑	4%	York	2%
9	Thetford	↓	3%	Oxford	2%
10	Hastings*	↑	3%	Hastings	2%

Figure 3.54 Top ten ranked mints in Period III compared with Period II.
* Two mints, Ipswich and Warwick also accounted for 3% of the total.

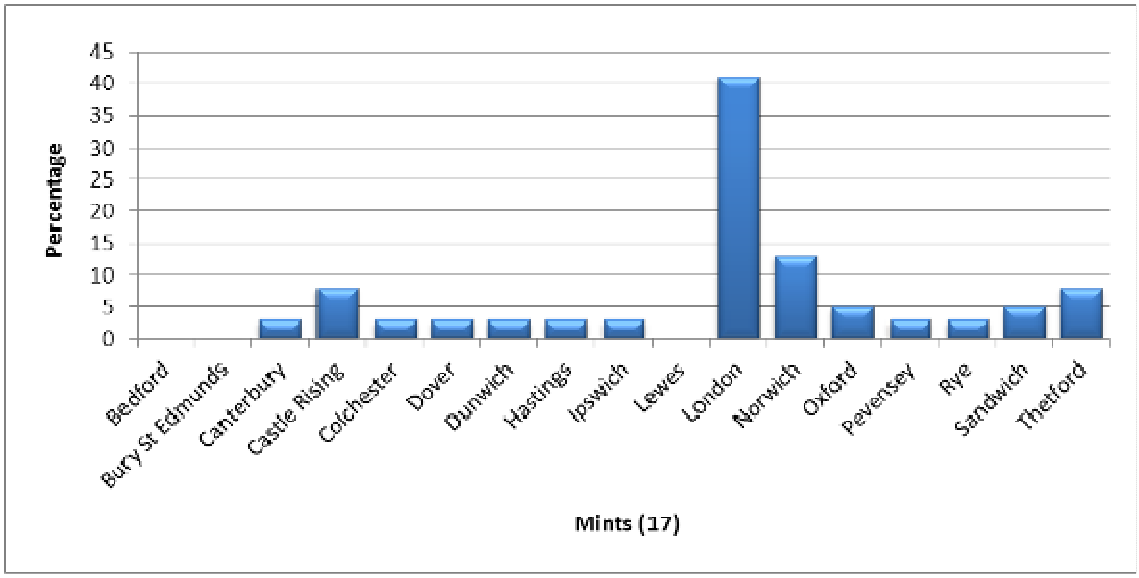


Figure 3.55 Mint attribution of BMC II coins in the dataset. London is by far the dominant mint with minimal numbers from the other mints (only Lewes, Bury St Edmunds and Bedford are not represented by a find).

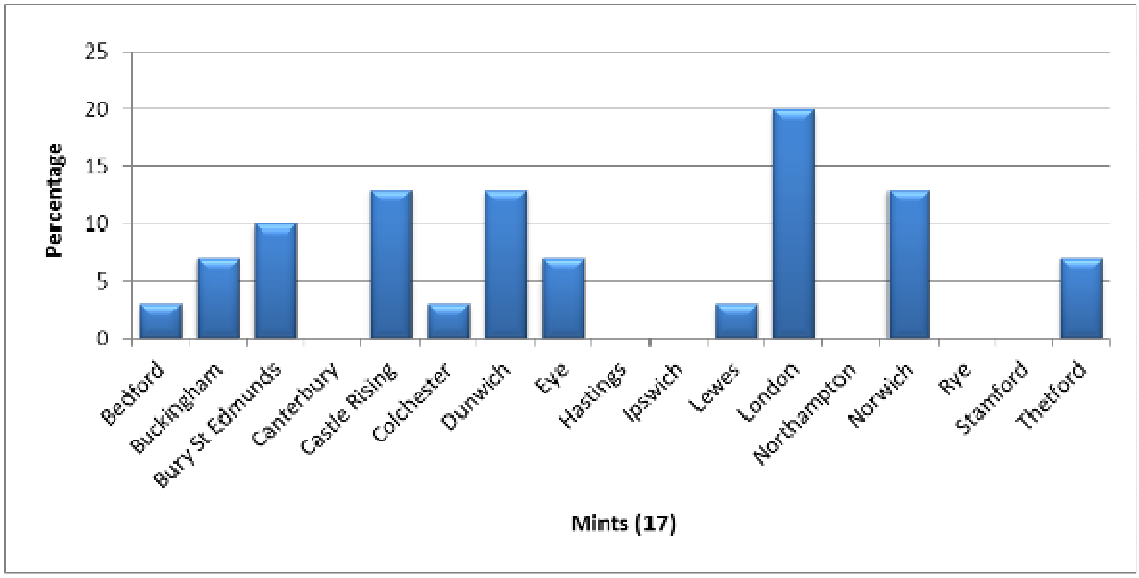


Figure 3.56 Mint attribution of BMC VI coins in the dataset.

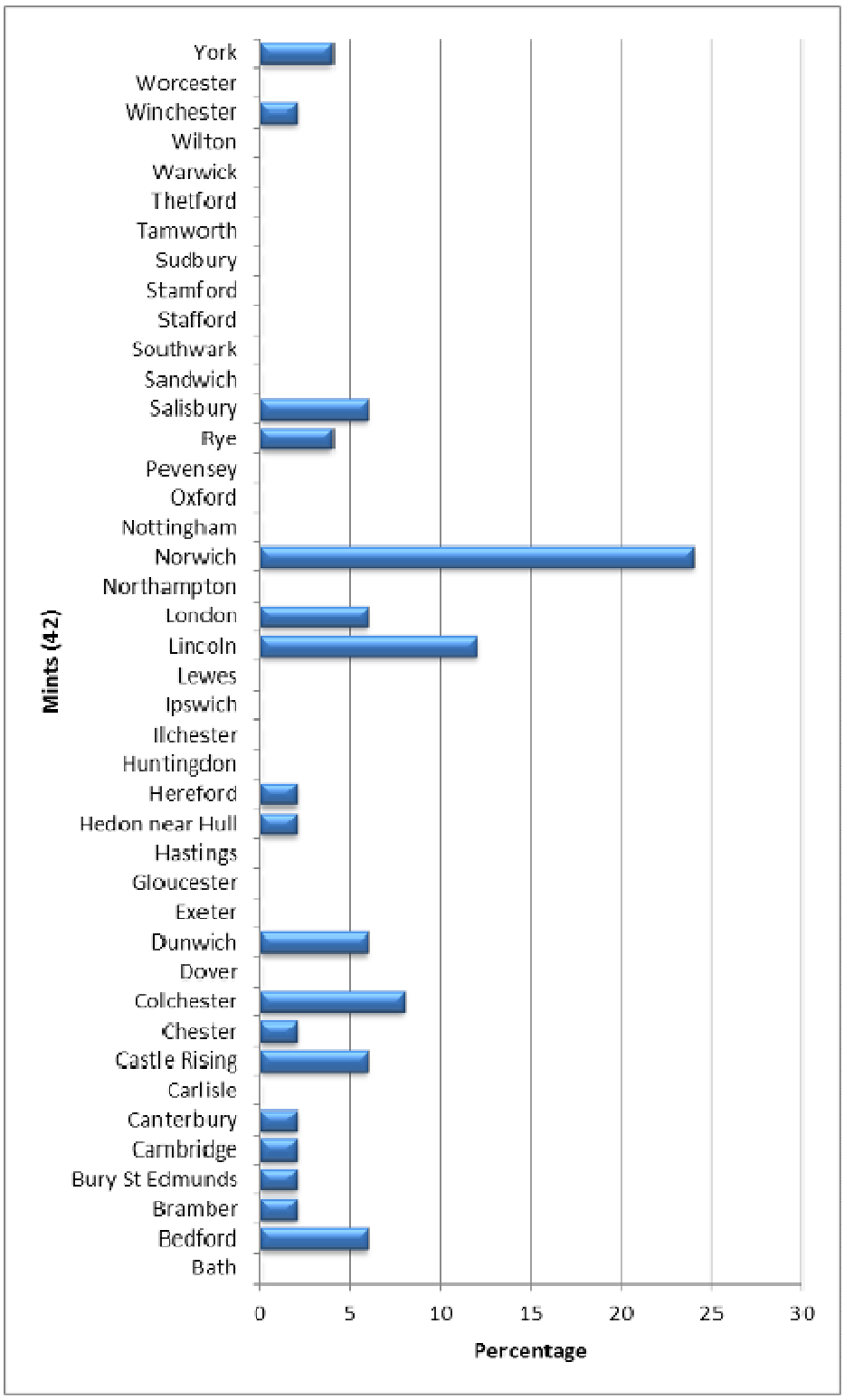


Figure 3.57 Period III coins of type VII by mint.

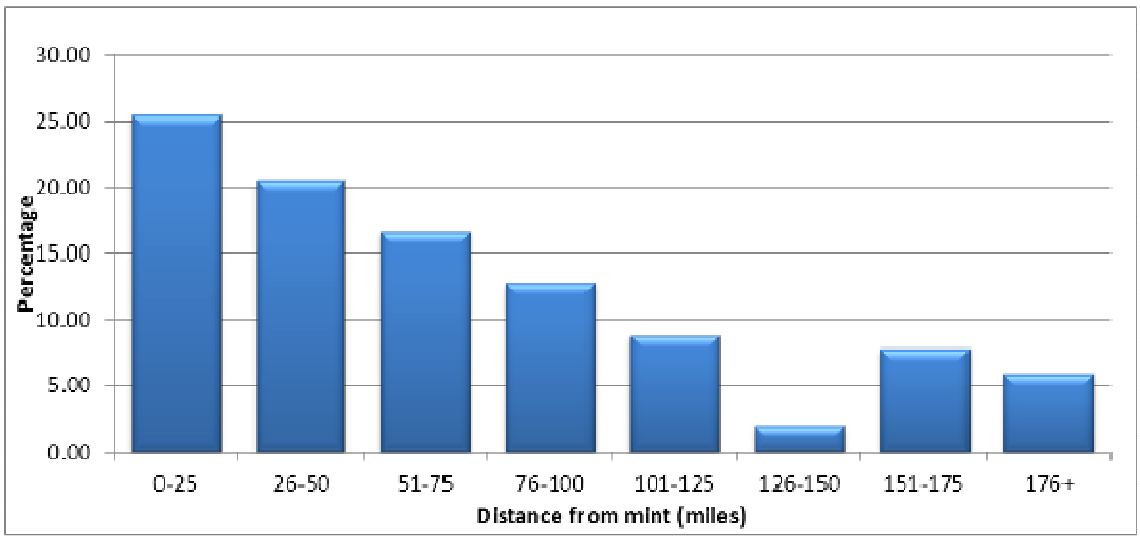


Figure 3.58 Period III BMC I coins distance from mint.

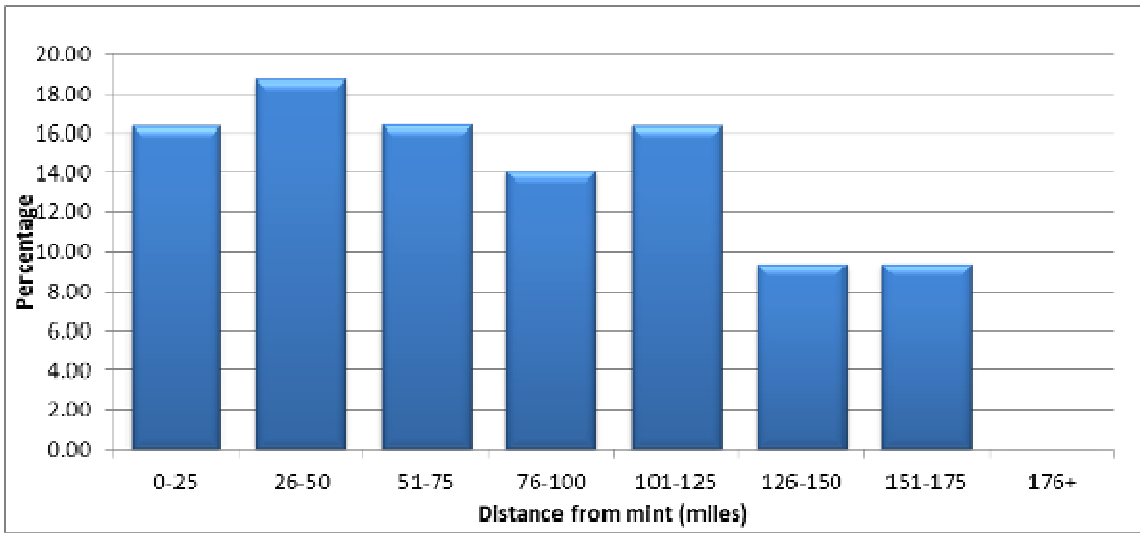


Figure 3.59 Period III BMC VII coins distance from mint.

Period	Total hoards	With carry-overs	Details
IV	23	3 (13%)	Awbridge (mid/late 1160s) 35 of c.180 (19.4%); London Bridge (1158-80) 3 of an unknown number; Wicklewood (early/mid-1170s) 341 of 482 (70.7%).
V	67	2 (2.9%)	Framlingham (1190s-1205) 1 of 166; St Thomas' Hospital (1190s-1205) 2 of 26 (7.7%) – possibly intrusive.
VI	21	3 (14.3%)	Colchester (1256) 6 of *c.*14,076 (0.04%); Thwaite (1260s) 1 of 23 (4.3%); Steppingley (*c.*1270) 2 of 531 (0.4%).

Figure 4.1 Carry-over of hoard coins from one period into the next in Phase B.

Period	PAS finds	EMC finds	Total	Single finds Per year	Value per loss	Hoards	Hoards/ year	Excavation coins
IV (1158-1180)	210	482	692	30.1	0.78	23	1.1	60
V (1180-1247)	3152	-	3152	47.0	0.72	67	1	719
VI (1247-1279)	2593	-	2593	81.0	0.65	21	0.7	349

Figure 4.2 Single finds, hoards and excavated coins recorded in Phase B



Figure 4.3 Cross-and-Crosslets penny found at West Lindsey, Lincs. (LVPL-C5C640).

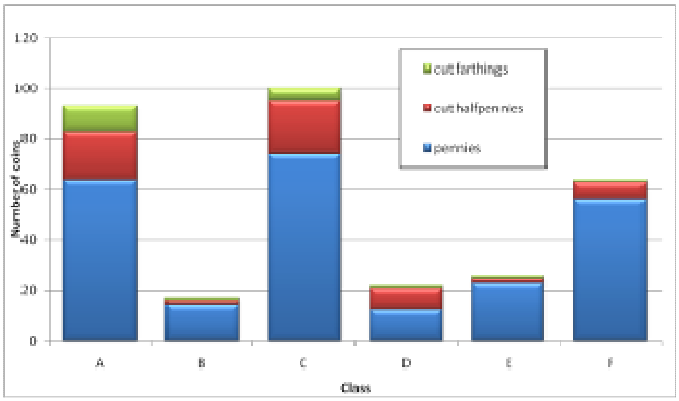


Figure 4.4 Period IV denominations by class. Pennies are overrepresented in this graph as they are more easily identified to class than fractional coins. EMC coins have a better level of identification to class than those from PAS (65.98%:24.04%)

Class	Date range (Crafter 1998)	Mints active	Moneyers active	Single finds	Crafter	Reverse die estimates (**Allen** 2012a: 305**)**
A	1158-*c.*1163	30	101-102	99 (27%)	16 (26%)	384 (32%)
B	*c.*1162-*c.*1163	10-11	22-25	19 (5%)	4 (7%)	66 (5%)
C	*c.*1163-*c.*1167	19-20	60-63	115 (31%)	16 (26%)	270 (22%)
D	*c.*1167-*c.*1170	16-17	37-39	28 (8%)	5 (8%)	100 (8%)
E	*c.*1170-*c.*1174	12-14	24-27	28 (8%)	6 (10%)	103 (9%)
F	*c.*1174-1180	12	26-27	79 (21%)	14 (23%)	287 (24%)
Unc.[15]		-	-	322[16]	-	-
TOTAL		31-32	124-126	690	61	1210

Figure 4.5 Typological structure of the cross-and-crosslets coinage and numbers of single finds comparison with Crafter (1998) and reverse die estimates for the size of production.

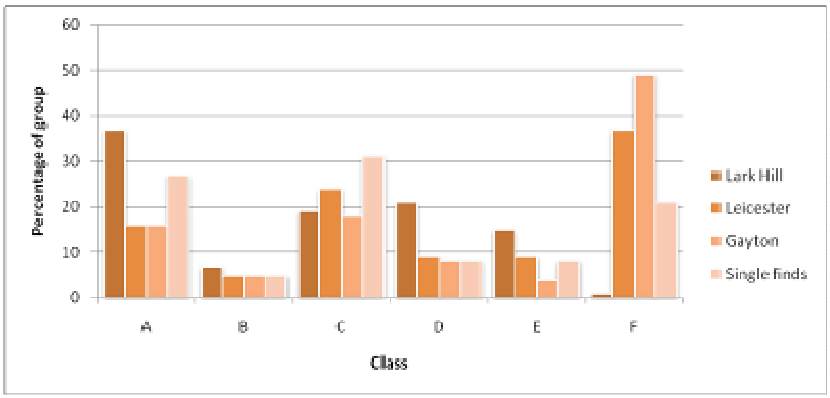


Figure 4.6 Cross-and-Crosslets classes in two hoards compared against single finds.

[15] This figure includes counterfeits.
[16] Three further coins are listed as Cross-and-Crosslets *or* Short Cross.



Figure 4.7 Short Cross penny of Philip Aimer, London mint.
Found at Threekingham, Lincs. (PAS: LIN-B2CF72)

Class	Date range	Mints active	Moneyers	No. of coins	Loss/year of class
1	1180-*c.*1189	10/10	71	245	27.2
2	*c.*1189-*c.*1190	4/6	17	26	28
3	*c.*1190-1194	5/7	20	39	9.8
4	1194-1204	9/10	35	141	14.1
5	1204-*c.*1210	15/16	18	472	78.7
6	*c.*1210-1217/18	5/6	21	152	19
7	1217/18-*c.*1242	4/4	34	312	13
8	*c.*1242-1247	3/3	5	39	7.8
Rhuddlan	1180s-1210s?	-	4	22	
uncertain				1266	
TOTAL				2936	

Figure 4.8 Short Cross coins in the dataset.

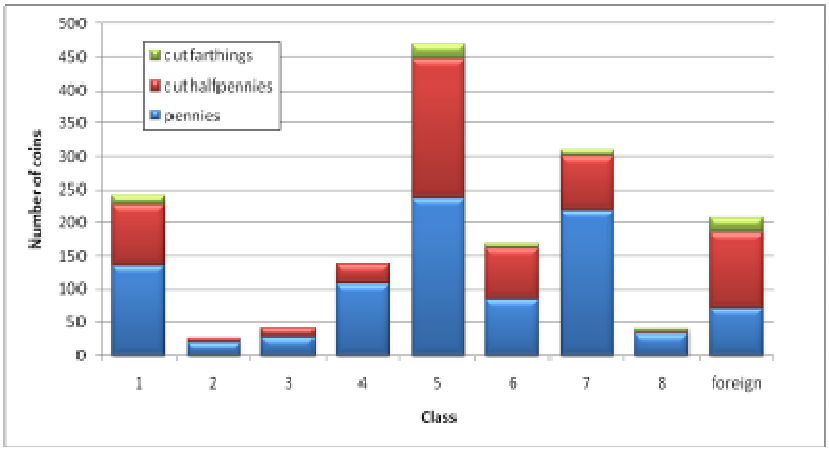


Figure 4.9 Numbers of Short Cross coins by class and denomination. 1474 coins were unattributed to class, 556 pennies, 692 cut-halfpennies and 226 cut-farthings.

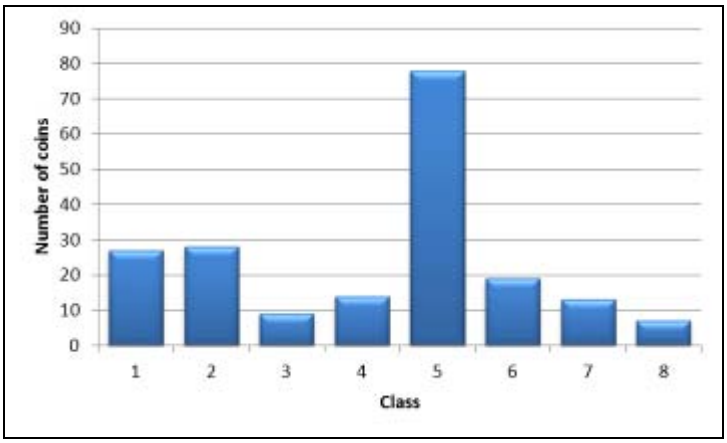


Figure 4.10 Period V coin-loss adjusted for length in years of class.

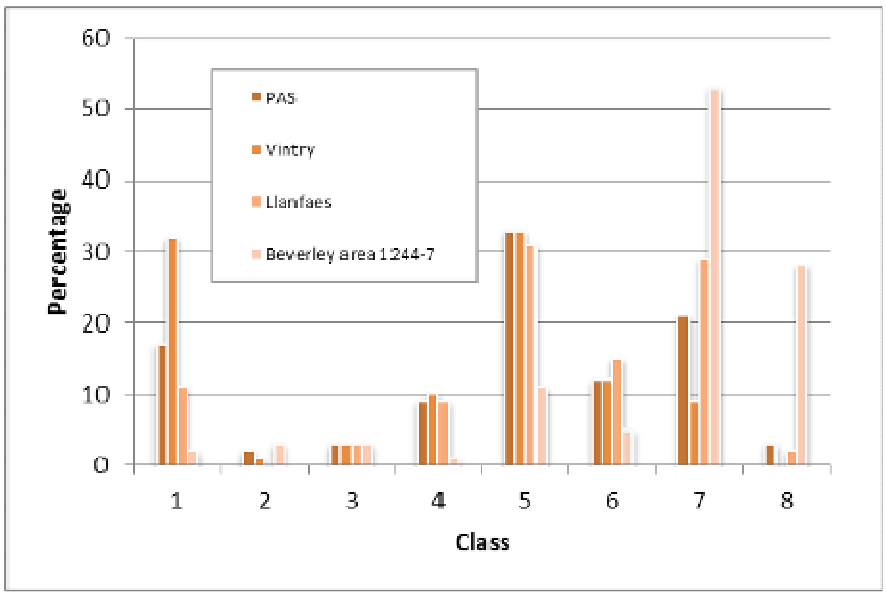


Figure 4.11 PAS Period V profile compared with significant sites and the Beverley area hoard.



Figure 4.12 Class 3b Long Cross penny found at Crondall, Hampshire (HAMP-A23893).

Class	Date range	Mints	No. of coins	Coins/year of issue
1	1247	3	20	20
2	1248	11	75	75
3	1248-50	20	574	287
4	1250	3	29	14.5
5	1250-1270s	4	652	31
6-7	1270s	3	2	0.28
uncertain	-	-	989	-
TOTAL	-	-	2341	-

Figure 4.13 PVI coins in the dataset by class.

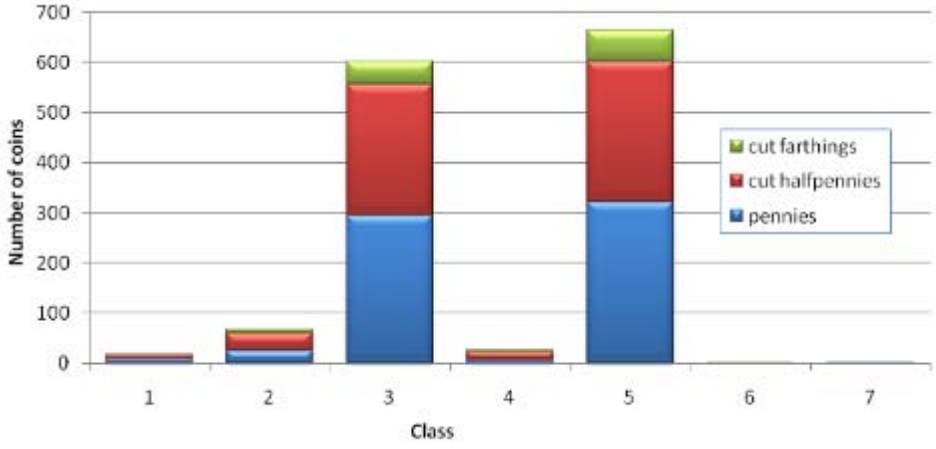


Figure 4.14 Numbers of Long Cross coins by class and denomination.

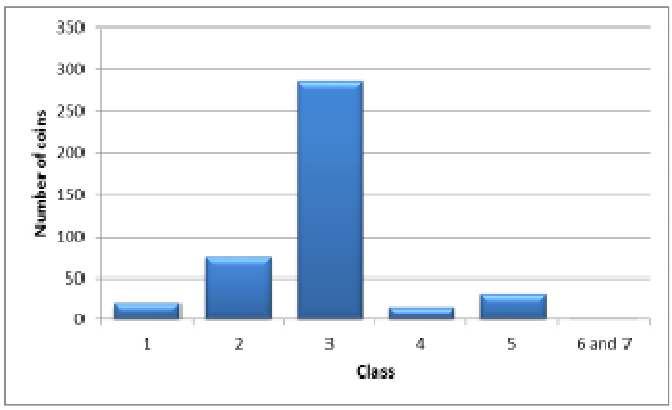


Figure 4.15 PVI coins losses per year of period.

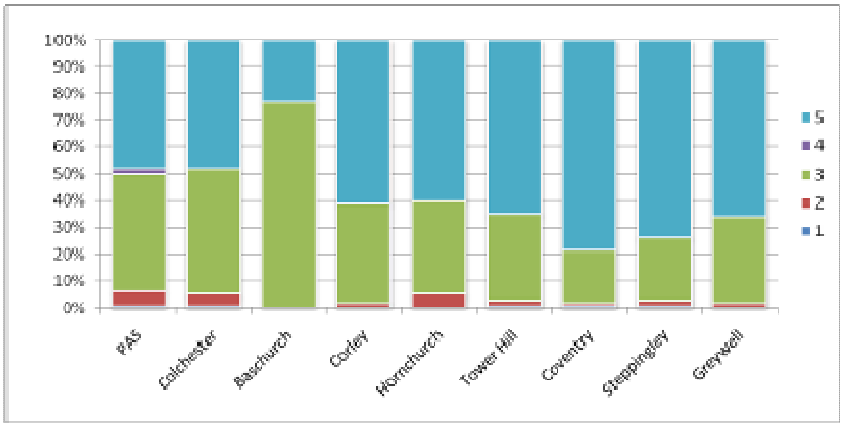


Figure 4.16 PVI PAS class profile compared with selected hoards.

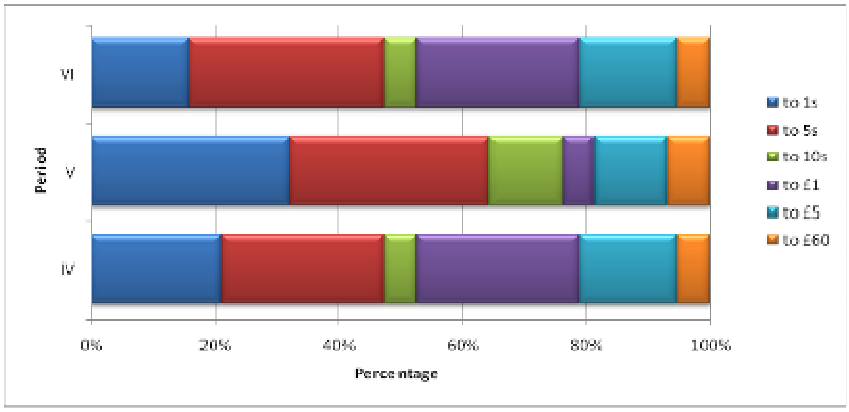


Figure 4.17 Value of Phase B hoards across Periods IV-VI all recorded hoards.

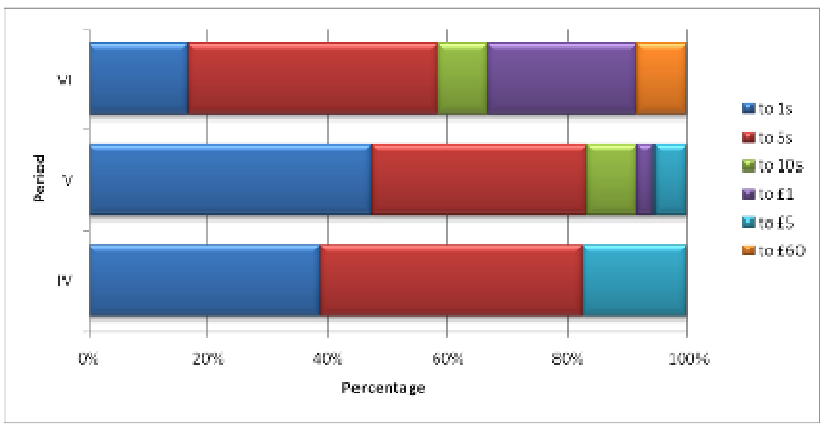


Figure 4.18 Value of Phase B hoards across Periods IV-VI hoards found since 1950.

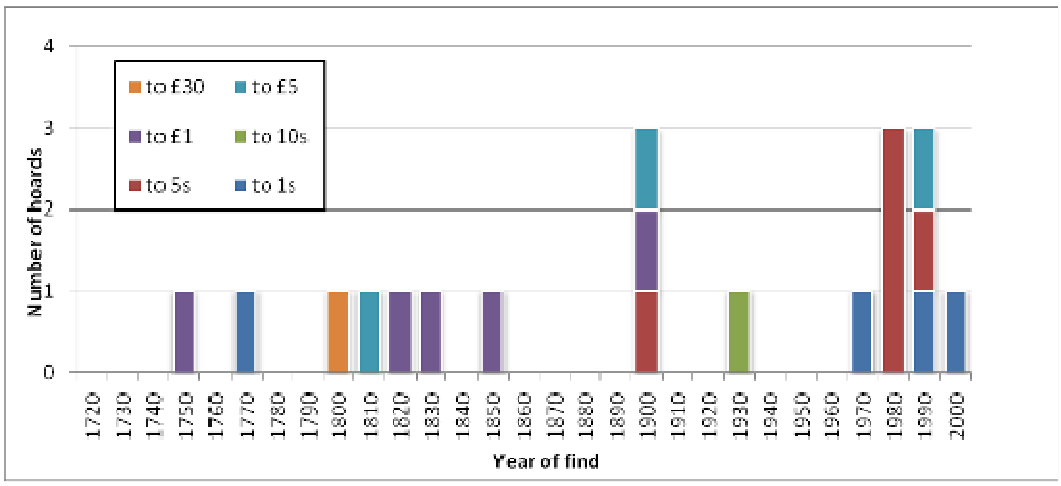


Figure 4.19 Year of discovery and value of Period IV hoards found 1720-2010 by decade. The deposit date of three hoards not dated sufficiently well for inclusion here. Where hoard contents are contested the minimum figure has been used.

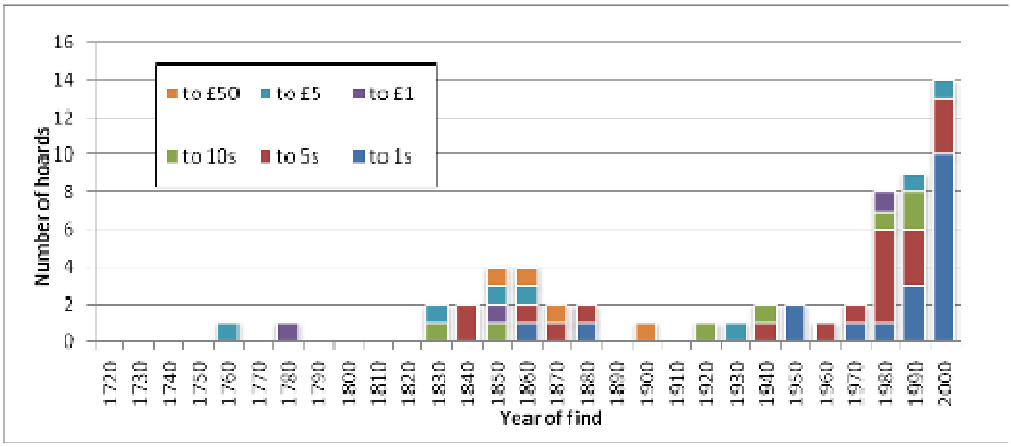


Figure 4.20 Year of discovery and value of Period V hoards found 1720-2010 by decade.

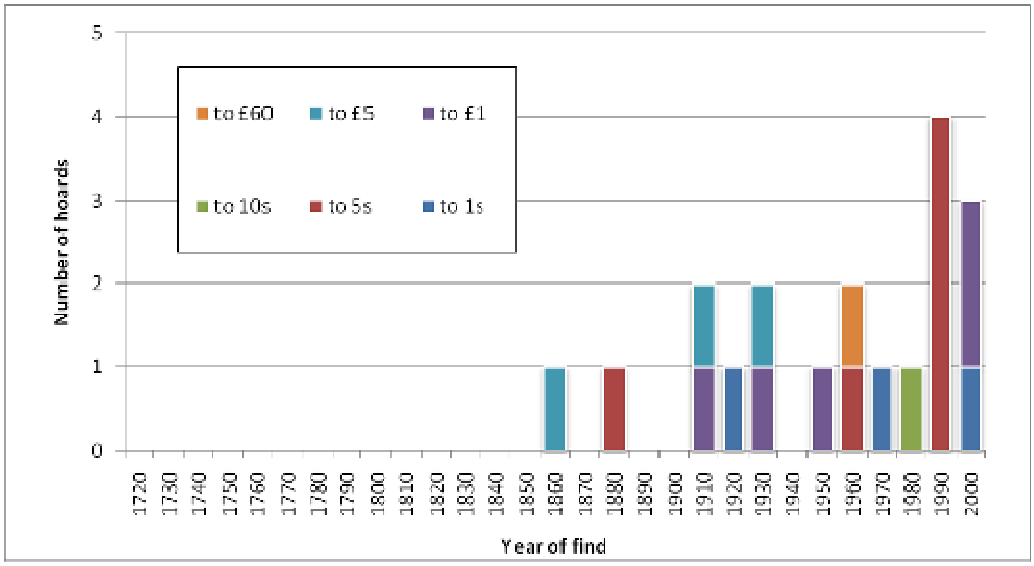


Figure 4.21 Year of discovery and value of Period VI hoards found 1720-2010 by decade.

REGION and *county*	Period IV Coins (%)	Period V Coins (%)	Period VI Coins (%)	Total Coins (%)
NORTH	**65 (10.8%)**	**207 (6.7%)**	**167 (7.2%)**	**439 (7.3%)**
County Durham	10 (15.4%)	8 (3.9%)	6 (3.6%)	24 (5.5%)
Cumbria	0 (0%)	7 (3.4%)	12 (7.2%)	19 (4.3%)
East Riding	22 (33.8%)	56 (27.1%)	49 (29.3%)	127 (28.9%)
Lancashire	0 (0%)	16 (7.7%)	5 (3%)	21 (4.8%)
North Yorkshire	28 (43.1%)	98 (47.3)	78 (46.7%)	204 (46.5%)
Northumberland	4 (6.2%)	12 (5.8%)	10 (6%)	26 (5.9%)
West Yorkshire	1 (1.5%)	10 (4.8%)	7 (4.2%)	18 (4.1%)
EAST CENTRAL	**96 (16%)**	**559 (18.1%)**	**418 (18%)**	**1073 (17.8%)**
Bedfordshire	4 (4.2%)	40 (7.2%)	26 (6.2%)	70 (6.5%)
Leicestershire and Rutland	8 (8.3%)	119 (21.3%)	107 (25.6%)	234 (21.8%)
Lincolnshire	61 (63.5%)	273 (48.8%)	196 (47.4%)	530 (49.4%)
Northamptonshire	13 (13.5%)	51 (9.1%)	47 (11.2%)	111 (10.3%)
Nottinghamshire	9 (9.4%)	61 (10.9%)	37 (8.9%)	107 (10%)
South Yorkshire	1 (1%)	15 (2.7%)	5 (1.2%)	21 (2%)
WEST CENTRAL AND WALES	**52 (8.7%)**	**401 (13%)**	**354 (15.2%)**	**807 (13.4%)**
Avon	4 (7.7%)	4 (1%)	0 (0%)	8 (0.9%)
Cheshire	3 (5.8%)	38 (9.5%)	40 (11.3%)	91 (11.2%)
Derbyshire	2 (3.8%)	15 (3.7%)	14 (4%)	31 (3.8%)
Gloucestershire	1 (1.9%)	49 (12.2%)	20 (5.6%)	70 (8.7%)
Herefordshire	0 (0%)	13 (3.2%)	9 (2.5%)	22 (2.7%)
Shropshire	0 (0%)	32 (8%)	22 (6.2%)	54 (6.7%)
Staffordshire	6 (11.5%)	31 (7.7%)	19 (5.4%)	56 (6.9%)
Wales	10 (19.2%)	48 (12%)	47 (13.3%)	105 (13%)
Warwickshire	16 (30.8%)	118 (29.4%)	159 (44.9%)	293 (36.3%)
West Midlands	0 (0%)	6 (1.5%)	2 (0.6%)	8 (0.9%)
Worcestershire	5 (9.6%)	47 (11.7%)	22 (6.2%)	74 (9.2%)
EAST ANGLIA	**267 (44.4%)**	**963 (31.2%)**	**714 (30.7%)**	**1944 (32.3%)**
Cambridgeshire	25 (9.3%)	74 (7.7%)	50 (7%)	149 (7.7%)
Essex	23 (8.6%)	80 (8.3%)	47 (6.6%)	150 (7.7%)
Norfolk	150 (56.2%)	388 (40.3%)	243 (34%)	781 (40.2%)
Suffolk	69 (25.8%)	421 (43.7%)	374 (52.4%)	864 (44.4%)
SOUTH EAST	**96 (16%)**	**827 (26.8%)**	**566 (24.3%)**	**1498 (24.9%)**
Berkshire	2 (2.1%)	13 (1.6%)	5 (0.9%)	20 (1.3%)
Buckinghamshire	9 (9.4%)	99 (12%)	62 (11%)	170 (11.3%)
East Sussex	4 (4.2%)	64 (7.7%)	39 (6.9%)	107 (7.1%)
Greater London	4 (4.2%)	5 (0.6%)	3 (0.5%)	12 (0.8%)
Hampshire	33 (34.4%)	141 (17%)	124 (21.9%)	298 (19.9%)
Hertfordshire	7 (7.3%)	55 (6.7%)	26 (4.6%)	88 (5.9%)
Isle of Wight	3 (3.1%)	89 (10.8%)	100 (17.7%)	192 (12.8%)
Kent	22 (22.9%)	200 (24.2%)	118 (20.8%)	340 (22.7%)
Oxfordshire	3 (3.1%)	19 (2.3%)	19 (3.4%)	41 (2.7%)
Surrey	2 (2.1%)	99 (12%)	68 (12%)	169 (11.3%)
West Sussex	7 (7.3%)	43 (5.2%)	29 (5.1%)	79 (5.3%)
SOUTH WEST	**25 (4.2%)**	**132 (4.3%)**	**108 (4.6%)**	**265 (4.4%)**
Cornwall	2 (8%)	36 (27.3%)	21 (19.4%)	59 (22.3%)
Devon	2 (8%)	6 (4.5%)	7 (6.5 %)	15 (5.7%)
Dorset	7 (28%)	25 (18.9%)	18 (16.7%)	50 (18.9%)
Somerset	5 (20%)	13 (9.8%)	20 (18.5%)	38 (14.3%)
Wiltshire	9 (36%)	52 (39.4%)	42 (38.9%)	103 (38.9%)
TOTAL COINS	**601**	**3089**	**2327**	**6017**

Figure 4.22 Coins from each county in Phase B (1158-1279).

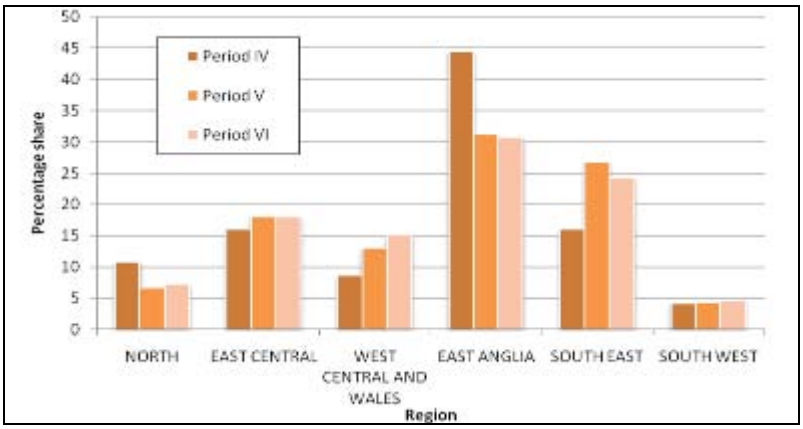


Figure 4.23 Phase B regional share of coins

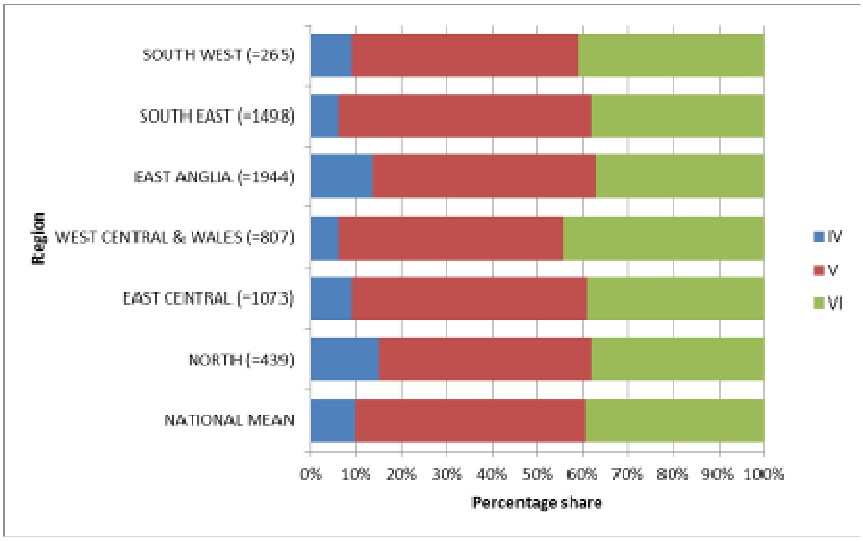


Figure 4.24 Phase B regional proportions by Period

Region	1-5	6-10	11-20	21-30	31-40	41-50	51-75	76-100
North	206	11	4	1	0	0	0	0
East Central	327	23	20	1	0	1	0	0
West Central and Wales	267	9	2	3	0	0	1	1
East Anglia	413	9	53	8	2	1	2	0
South East	338	36	25	1	4	3	0	0
South West	106	4	4	0	0	0	0	0

Figure 4.25 PAS/EMC assemblage sizes in each region

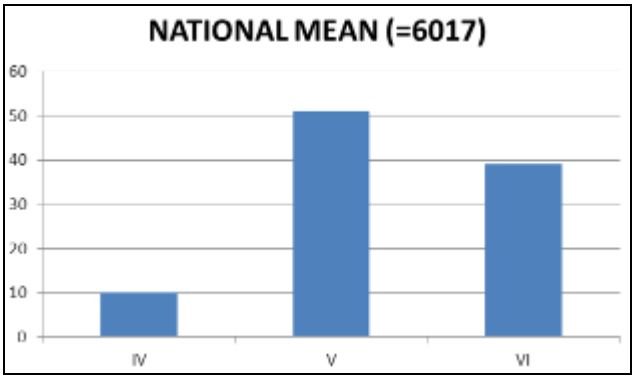


Figure 4.26 Phase B National Mean

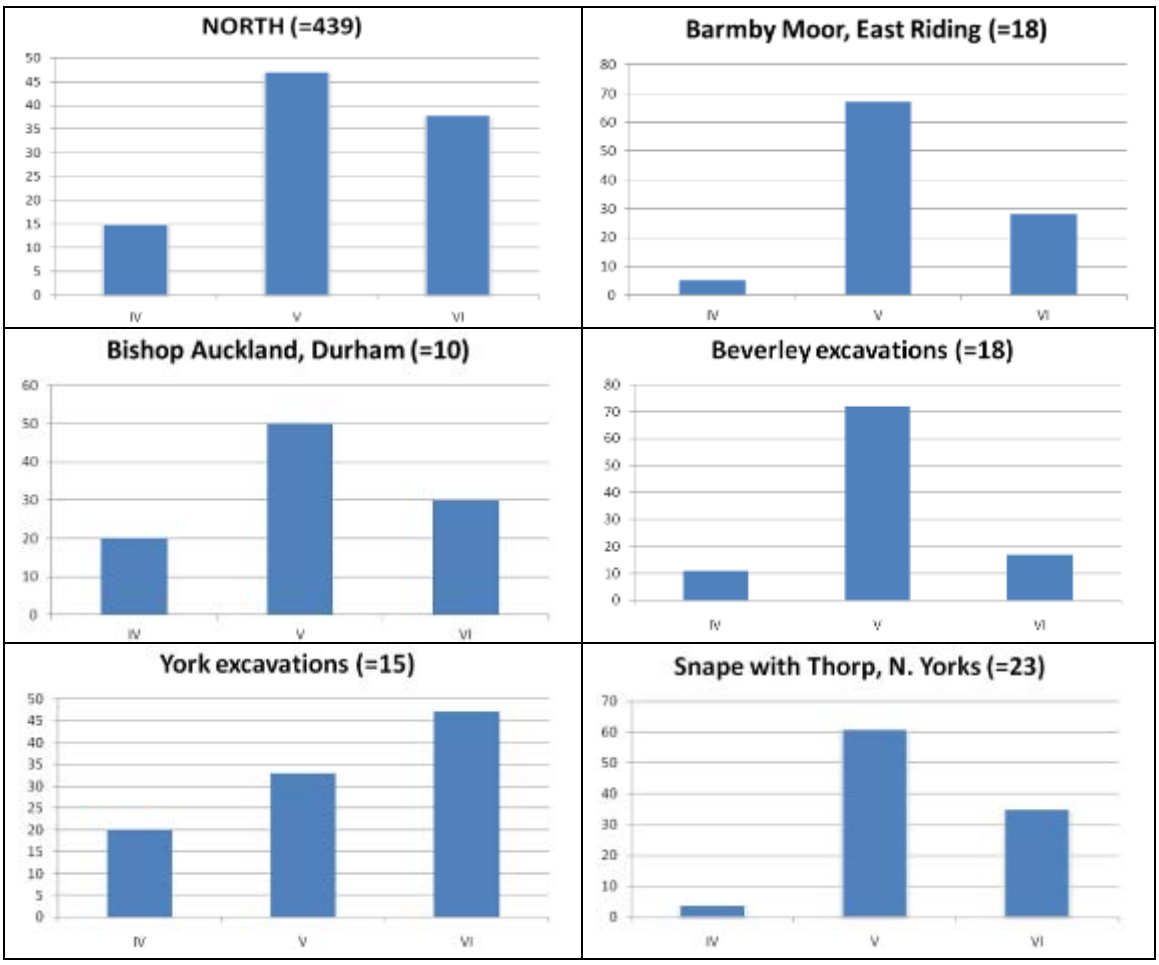
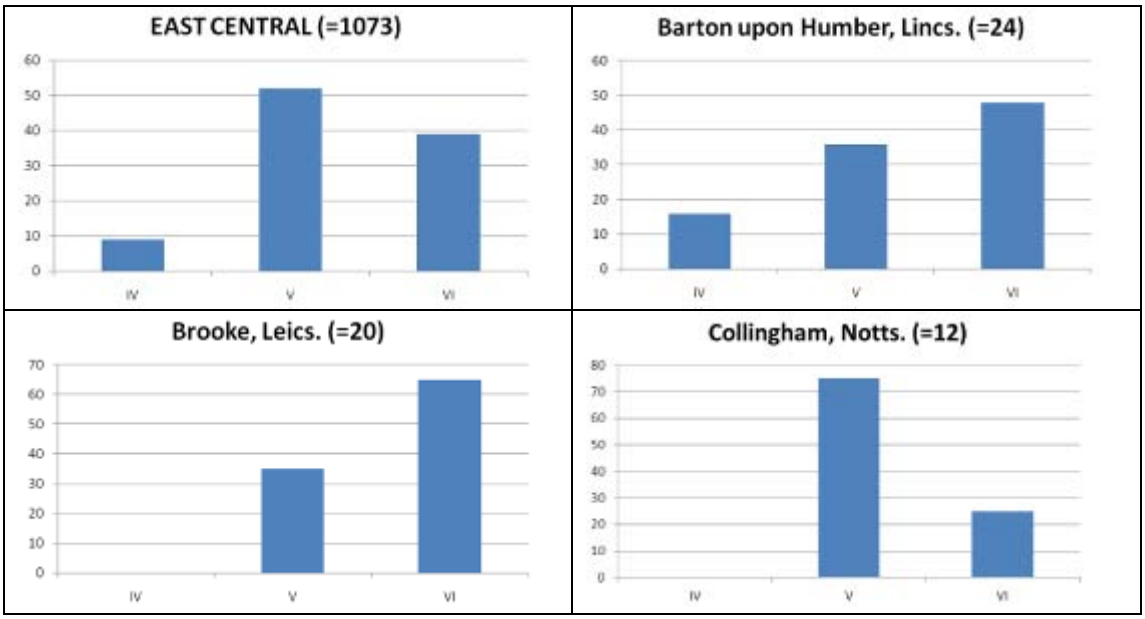


Figure 4.27 Phase B Northern regional assemblages



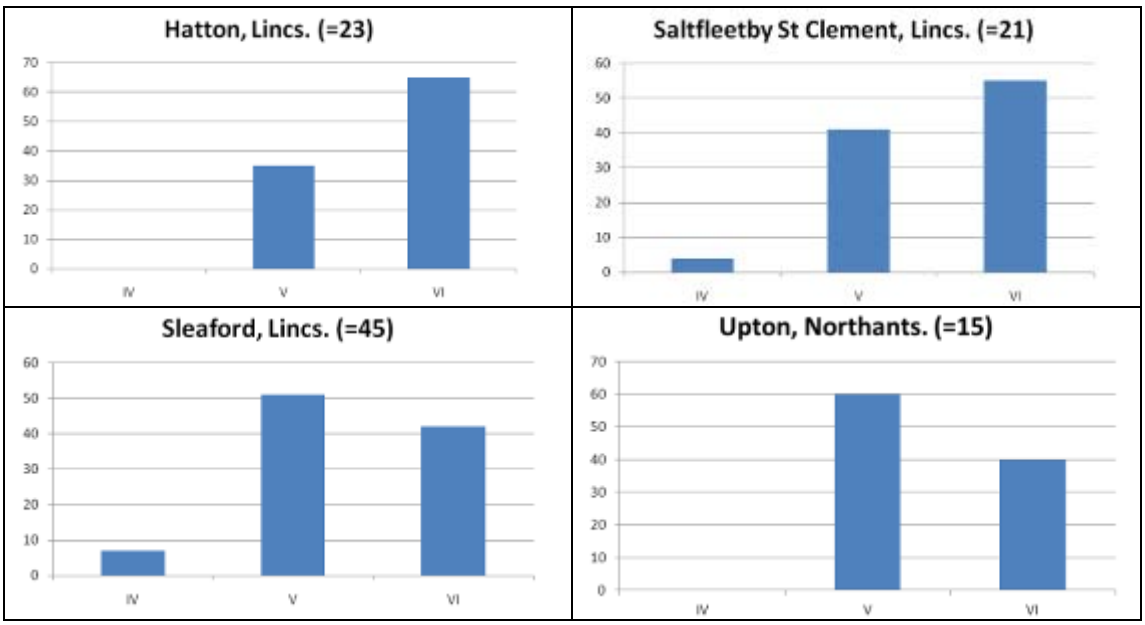


Figure 4.28 Phase B East Central regional assemblages



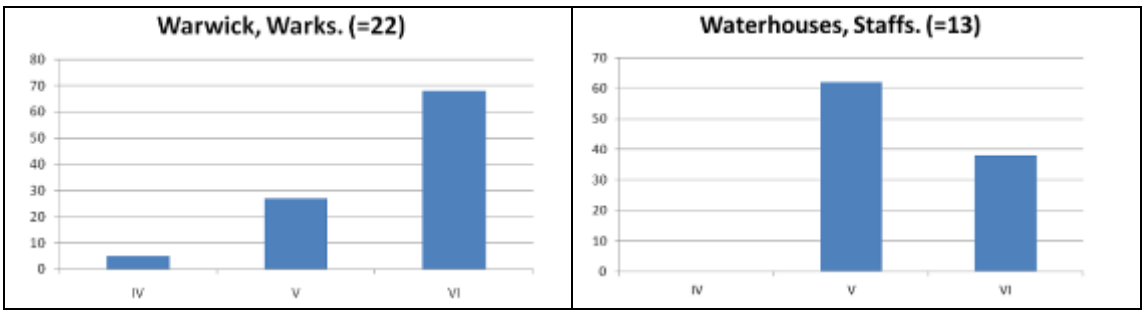


Figure 4.29 Phase B West Central and Wales regional assemblages



Figure 4.30 Phase B East Anglia regional assemblages



Figure 4.31 Phase B South East regional assemblages

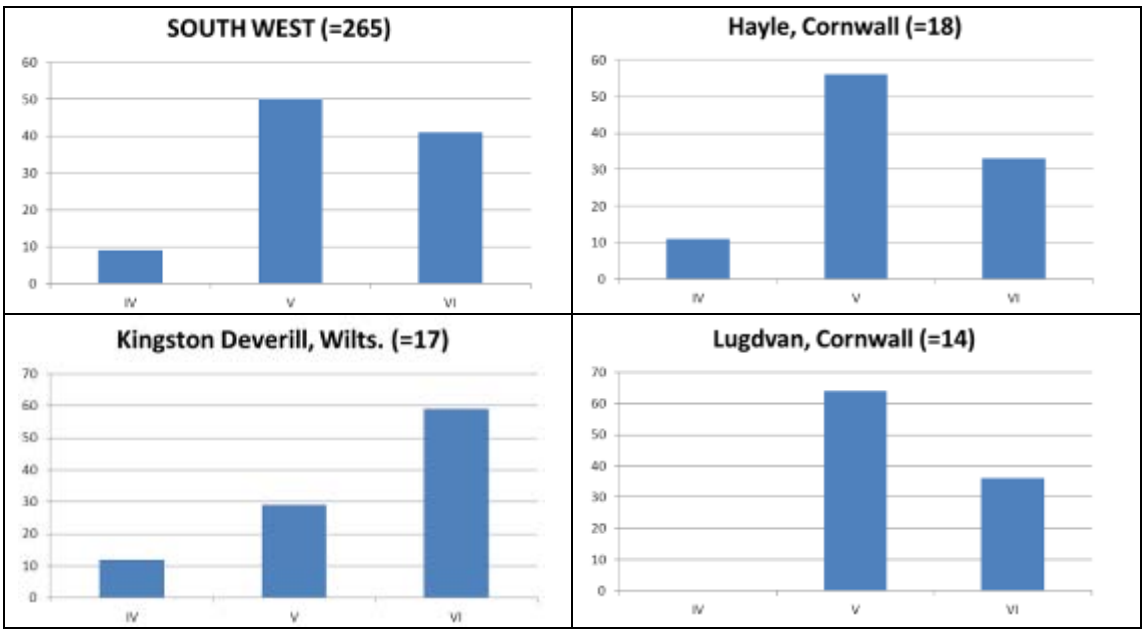


Figure 4.32 Phase B South West regional assemblages

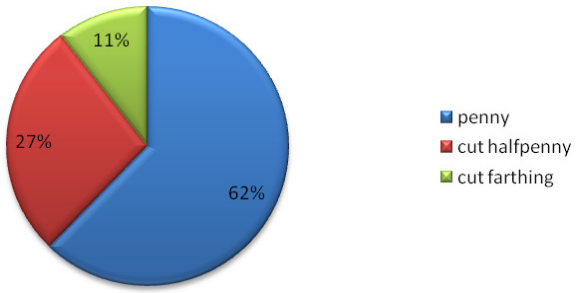


Figure 4.33 Period IV coins by denomination.
Inclusion of the PAS coins caused a 2% shift in favour of cut-farthings over pennies.

Sites (18)	1d.	½d.	¼d.	Total	Per year	Mean per site	Adj.	Value per site (*d.*)	Adj.	Value per coin (*d.*)	Adj.
A. Monastic (2)	2	0	1	3	0.14	1.5	6.81	1.10	5.00	0.75	3.41
D. Castle (2)	1	1	0	2	0.09	1.0	4.55	0.75	3.41	0.75	3.41
E. Town (9)	7	3	3	13	0.59	1.4	6.36	1.03	4.68	0.70	3.18
G. Manor/moat (1)	3	0	0	3	0.14	3.0	13.64	3.00	13.63	1.00	4.55
I. Village (4)	1	3	0	4	0.18	1.0	4.55	0.63	2.86	0.63	2.86
TOTAL (exc.)	14	7	4	25	1.14	1.4	6.36	1.03	4.68	0.74	3.36
Vintry	9	13	5	27	1.23	-		-		0.62	2.82
Dunwich[17]	0	1	2	3	0.14	-		-		0.33	1.52
Llanfaes	2	2	0	4	0.18	-		-		0.75	3.41
TOTAL (all finds)	25	23	11	59	2.73						

Figure 4.34 Period IV excavation coins by site type. Adjusted figures calculate finds relative to length of period (√22x100).

[17] Only the most recent finds from Dunwich (Allen and Doolan 2002) are included in these figures as there remains serious doubt as to the completeness of the earlier published groups (Hancox 1908; Seaman 1972).

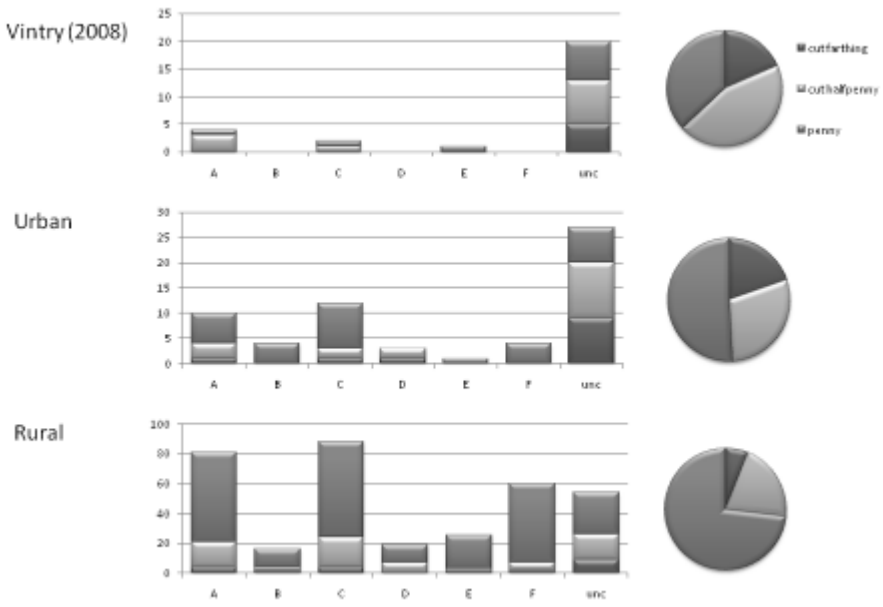


Figure 4.35 Period IV class and denominational split of finds across different site types.
More pennies are identified to type than fractional coins and are therefore slightly over-represented.

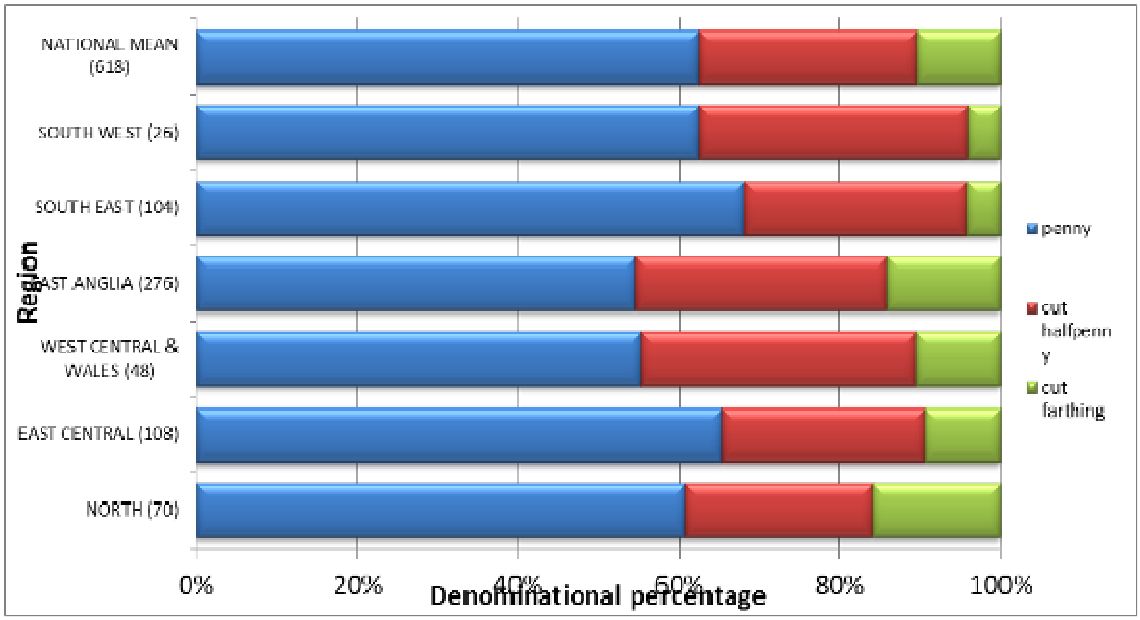


Figure 4.36 Period IV denominational profile by region.

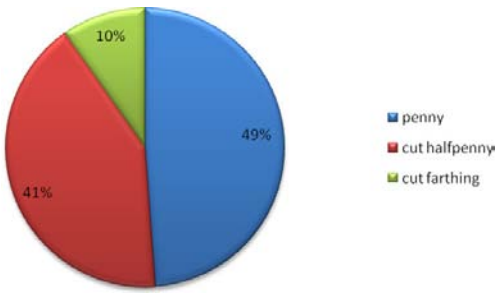


Figure 4.37 Period V coins by denomination.

Hoard	Deposited	Details
Carnforth, Cumbria	1204	33 pennies, 1 cut-halfpenny (2.9%).
Barnoldswick, Lancs.	1208-10	19 pennies, 2 cut-halfpennies (9.5%).
North Cave, East Riding	*c.*1215	27 pennies, 3 cut-halfpennies (10%).
Wendover, Bucks.	Mid-1230s	15 pennies, 2 cut-halfpennies (11.8%).
Wellow, Somerset	*c.*1236	11 pennies, 5 cut-halfpennies (31.3%).
Borrowby, N. Yorks.	Mid/late 1230s	32 pennies, 6 cut-halfpennies (15.8%).
Dereham, Norfolk	Mid-1240s	24 pennies.
Beverley Area, East Riding	1244-7	448 pennies, 27 cut-halfpennies (5.7%).

Figure 4.38 Selected PV hoard contents.

Sites (76)	1d.	½d.	¼d.	Total	Per year	Mean per site	Adj.	Value per site (*d.*)	Adj.	Value per coin (*d.*)	Adj.
A. Monastic (7)	18	18	3	39	0.58	5.57	8.31	3.96	5.92	0.71	1.06
C. Church/chapel (1)	0	1	0	1	0.01	1.00	1.49	0.50	0.75	0.50	0.75
D. Castle (9)	10	6	0	16	0.24	1.78	2.65	1.44	2.16	0.81	1.21
E. Town (25)	46	16	7	69	1.03	2.76	4.12	2.23	3.33	0.81	1.21
F. Royal palace (1)	1	0	0	1	0.01	1.00	1.49	1.00	1.49	1.00	1.49
G. Manor/moat (3)	1	1	1	3	0.04	1.00	1.49	0.58	0.87	0.58	0.87
H. Hospital (1)	1	0	0	1	0.01	1.00	1.49	1.00	1.49	1.00	1.49
I. Village (18)	8	18	9	35	0.52	1.94	2.90	1.07	1.60	0.55	0.82
K. Industrial (1)	0	1	0	1	0.01	1.00	1.49	0.50	0.75	0.50	0.75
TOTAL (exc.)	85	61	20	166	2.48	2.18	3.26	1.59	2.37	0.73	1.08
Vintry	28	41	33	102	1.52	-		-		0.55	0.83
Dunwich[18]	5	31	69	105	1.56	-		-		0.36	0.54
Llanfaes	174	141	31	346	5.16	-		-		0.73	1.09
TOTAL (all finds)	292	274	153	719	-						

Figure 4.39 Period V excavation coins by site type. Adjustments calculate finds relative to length of period (√67x100).

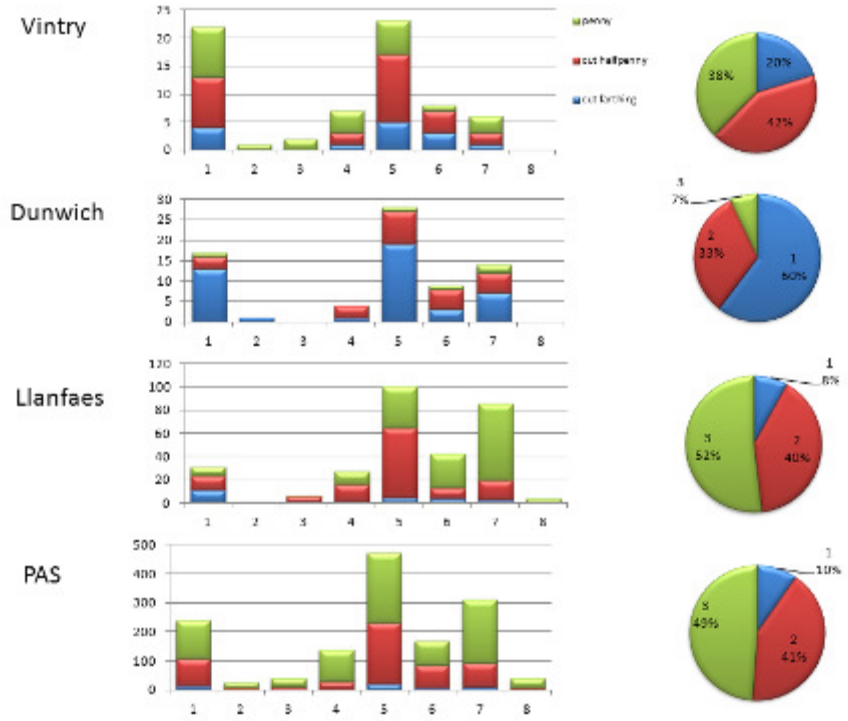


Figure 4.40 PV class and denominational split of finds across different site types.

[18] Only the most recent finds from Dunwich (Allen and Doolan 2002) are included in these figures as there remains serious doubt as to the completeness of the earlier published groups (Hancox 1908; Seaman 1972).

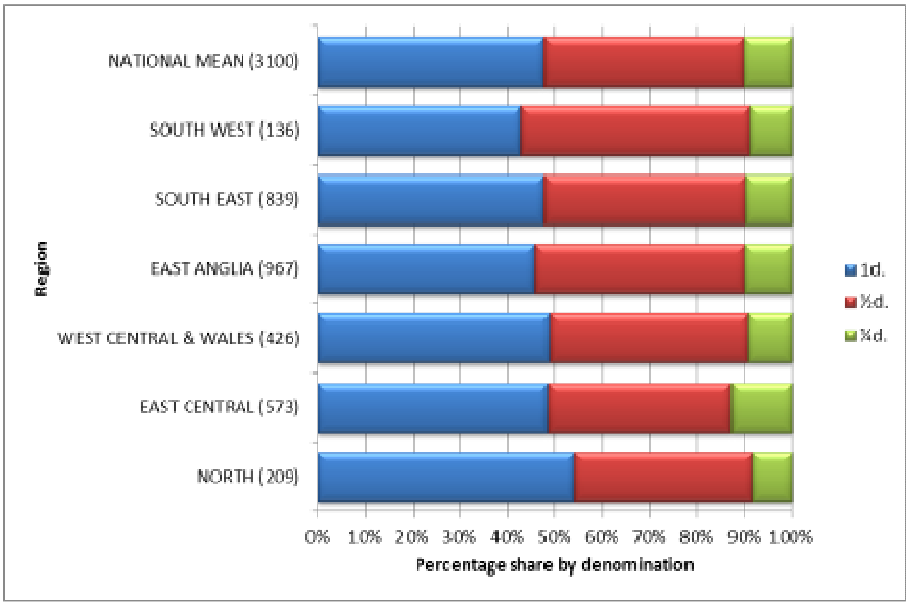


Figure 4.41 Period V denominational profile by region.

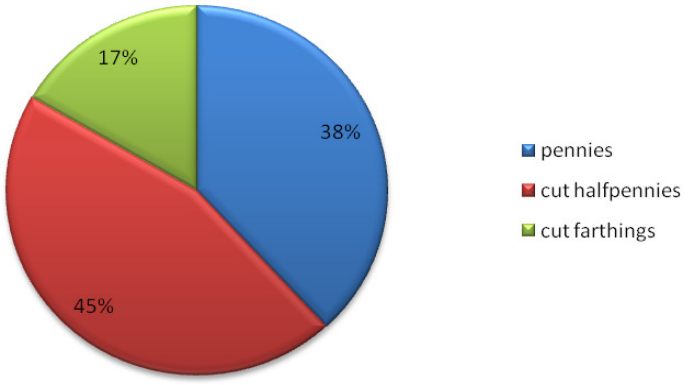


Figure 4.42 PVI coins by denomination

Hoard	Deposited	Details
Baschurch, Shropshire	1260s	160 pennies, 4 cut-halfpennies (2.4%)
Corley, Warks.	1260s	92 pennies, 70 cut-halfpennies, 4 cut-farthings (44.6%)
Hornchurch, Essex	1260s	27 pennies, 3 cut-halfpennies (10%)
Tower Hill, London	1260s	15 pennies, 2 cut-halfpennies (11.8%)
Coventry	c.1270	11 pennies, 5 cut-halfpennies (31.3%)
Steppingley, Beds.	c.1270	489 pennies, 29 cut-halfpennies (5.6%)
Greywell, Hants.	1270s	24 pennies.

Figure 4.43 Selected PVI hoards showing the prevalence of fractions.

Sites (52)	1d.	½d.	¼d.	Total	Per year	Mean per site	Adj.	Value per site (*d.*)	Adj.	Value per coin (*d.*)	Adj.
A. Monastic (11)	8	8	1	17	0.53	1.50	4.69	1.1	3.48	0.7	2.25
B. Cathedral/Eccl. palace (2)	1	1	0	2	0.06	1.00	3.13	0.75	2.34	0.75	2.34
D. Castle (8)	9	3	0	12	0.33	1.50	4.69	1.3	4.10	0.9	2.73
E. Town (12)	17	13	6	36	1.13	3.00	9.34	2.1	6.51	0.7	2.17
F. Royal palace (2)	2	0	0	2	0.06	1.00	3.13	1.0	3.13	1	3.13
G. Manor/moat (2)	0	1	1	2	0.06	1.00	3.13	0.4	1.17	0.4	1.17
H. Hospital (2)	0	3	2	5	1.16	2.50	7.18	1.0	3.13	0.4	1.25
I. Village (12)	6	16	7	29	0.91	2.40	7.55	1.3	4.10	0.5	1.31
K. Industrial (1)	1	0	0	1	0.03	1.00	3.13	1.0	3.13	1	3.13
TOTAL (exc.)	44	45	17	106	3.31	2.00	6.37	1.4	4.25	0.7	2.09
Vintry	7	16	18	41	1.28	-		-		0.48	1.49
Dunwich	0	13	44	57	1.78	-		-		0.31	0.96
Llanfaes	24	106	5	135	4.22	-		-		0.58	1.81
TOTAL (all finds)	75	180	84	339		-		-			

Figure 4.44 Period VI excavation coins by site type. Adjustments calculate finds relative to length of period (√32x100).

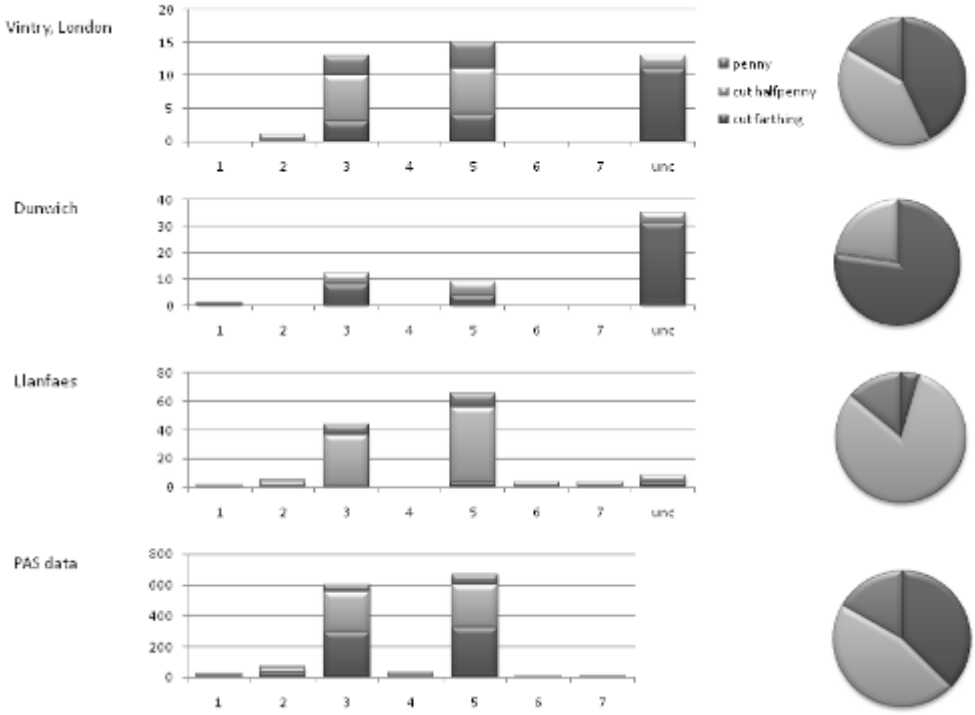


Figure 4.45 PVI class and denominational split of finds across different site types.

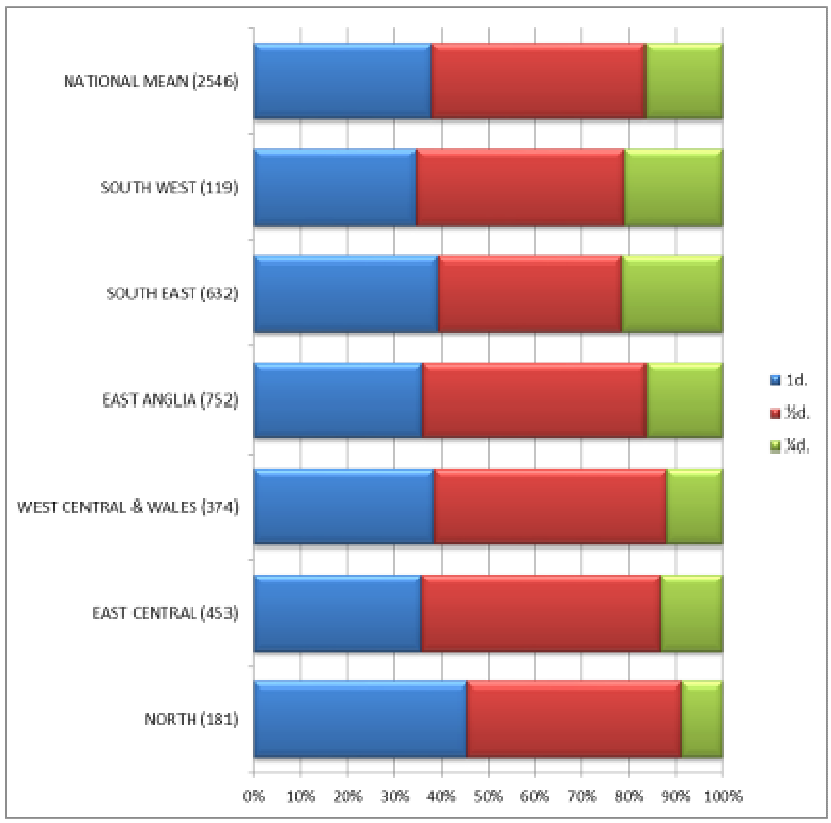


Figure 4.46 Period VI denominational profile by region

Mint	Period IV	Period V	Period VI	Mint	Period IV	Period V	Period VI
Bedford	○	-	-	Lincoln	●	●	●
Bristol	○	-	●	London	●	●	●
Bury St Edmunds	●	●	●	Lynn	-	●	-
Canterbury	●	●	●	Newark	?	-	-
Carlisle	●	●	●	Newcastle	●	-	●
Chester	●	-	-	Northampton	●	●	●
Chichester		●	-	Norwich	●	●	●
Colchester	●	-	-	Oxford	●	●	●
Durham	●	●	●	Pembroke	○	-	-
Exeter	●	●	●	Rhuddlan	-	●	-
Gloucester	●	-	●	Rochester	-	●	-
Hereford	●	-	●	Salisbury	●	-	-
Ilchester	●	-	●	Shrewsbury	○	●	●
Ipswich	●	●	-	Stafford	●	-	-
Launceston	●	-	-	Thetford	●	-	-
Leicester	●	-	-	Wallingford	●	-	●
Lewes	○	-	-	Wilton	●	●	●
Lichfield	-	○	-	Winchester	●	●	●

Figure 4.47 Mints active in Phase B. Dots are active mints represented in the sample, hollow circles are not known in the sample.

Rank	Period IV		%	EMC Period III	%
1	Canterbury	↑	23%	London	21%
2	London	↓	17%	Norwich	15%
3	Ipswich	↑	13%	Canterbury	8%
4	Newcastle	-	9%	Lincoln	7%
5	Bury St Edmunds	↑	7%	York	5%
6	Thetford	↑	7%	Bury St Edmunds	4%
7	Carlisle	↑	7%	Exeter	4%
8	Lincoln	↓	7%	Wilton	4%
9	Winchester	↑	6%	Thetford	3%
10	Norwich	↓	4%	Hastings*	3%

Figure 4.48 Top ten ranked mints in Period IV compared with Period III.

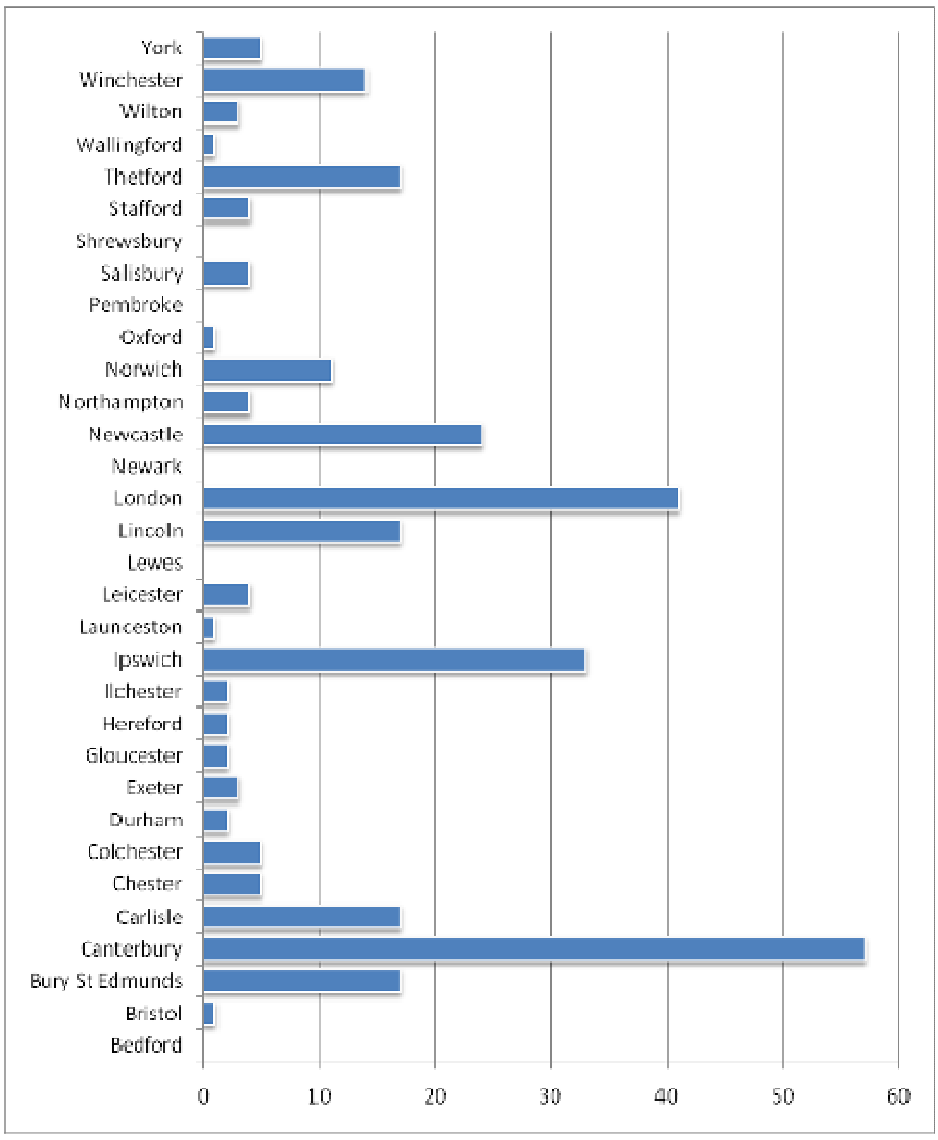


Figure 4.49 PIV coins by mint.

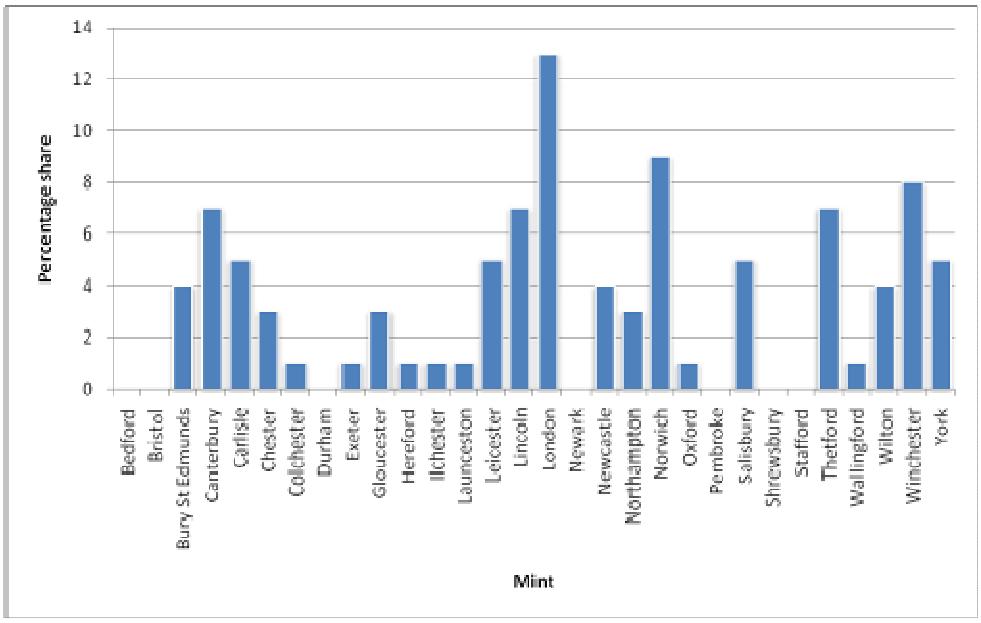


Figure 4.50 Class A coins by mint.

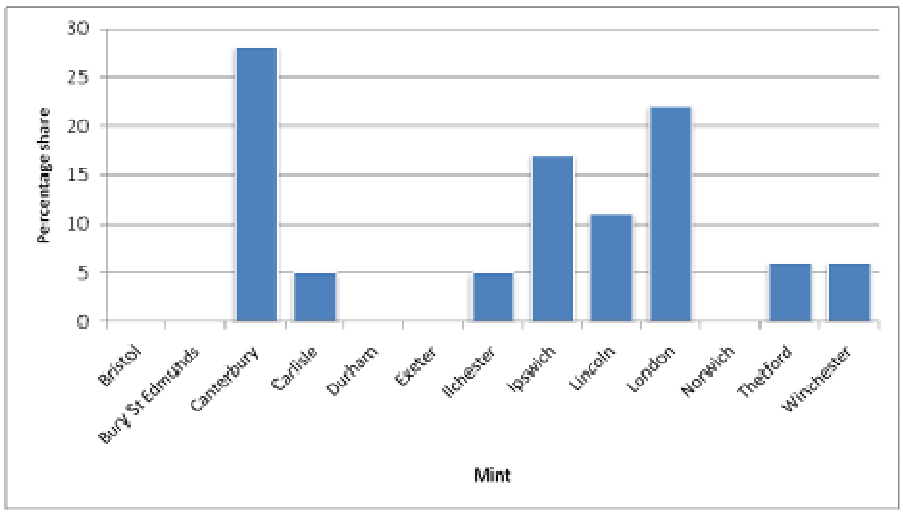


Figure 4.51 Class B coins by mint.

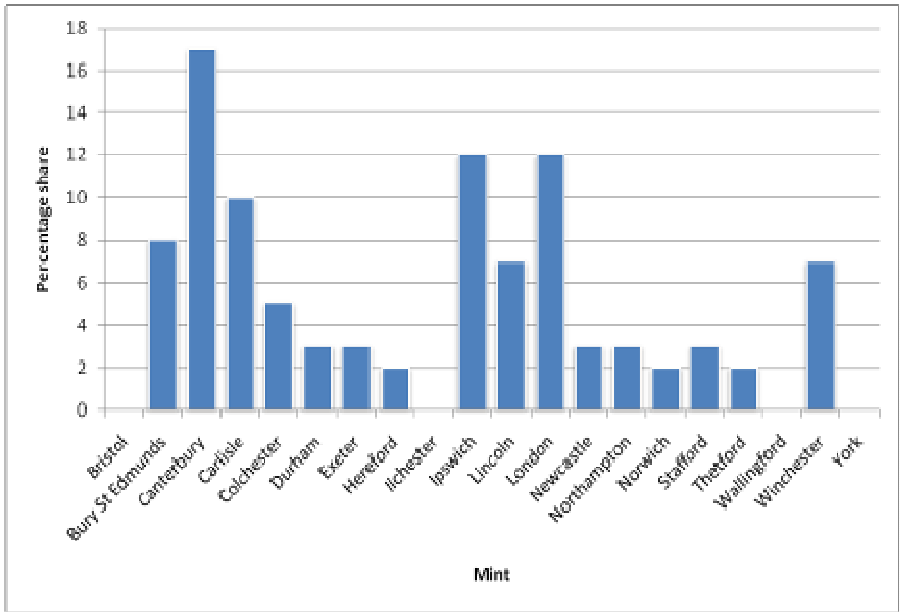


Figure 4.52 Class C coins by mint.

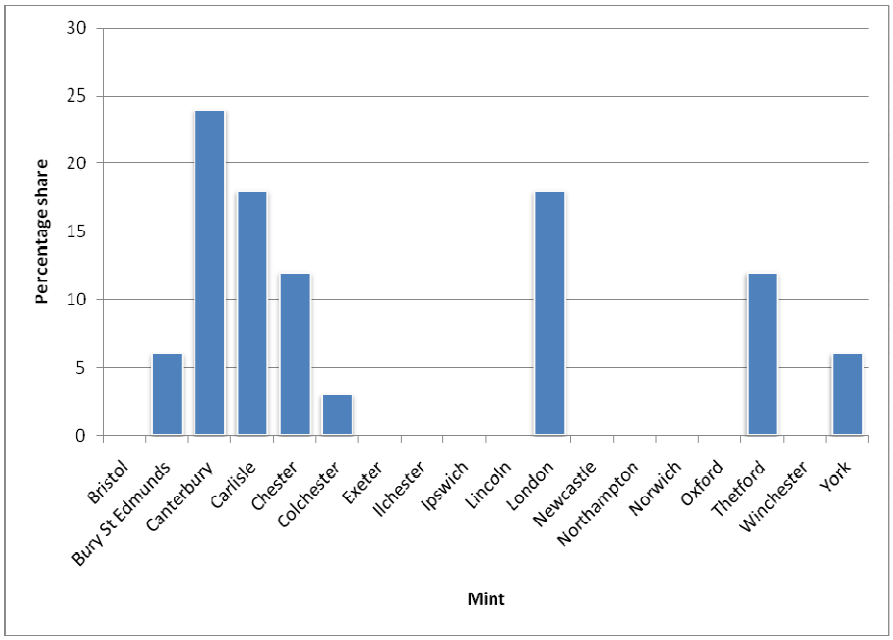


Figure 4.53 Class D coins by mint.

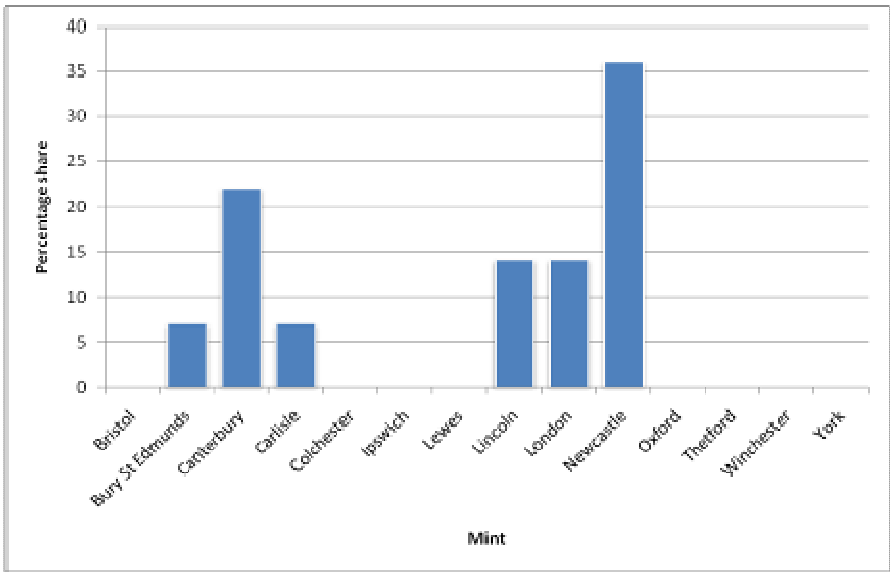


Figure 4.54 Class E coins by mint.

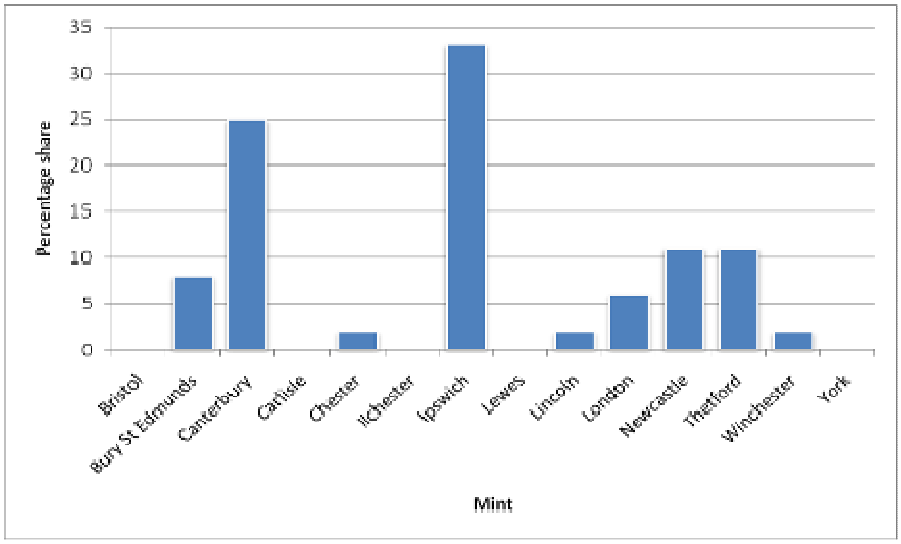


Figure 4.55 Class E coins by mint.

Region	Mint 1	Mint 2	Mint 3	Mint 4	Mint 5
North (70)	Newcastle (25%)	Canterbury (18%)	London (11%)	Lincoln (11%)	Carlisle (11%)
East Central (106)	London (21%)	Canterbury (14%)	Ipswich (14%)	Carlisle (7%)	Six mint (5%)
West Central & Wales (50)	Newcastle (21%)	Canterbury (13%)	London (13%)	Bury, Ipswich, Thetford, Winchester (8%)	
East Anglia (276)	Canterbury (22%)	Ipswich (16%)	London (11%)	Winchester (8%)	Lincoln and Thetford (7%)
South East (104)	Canterbury (36%)	London (12%)	Ipswich (12%)	Bury, Leicester, Lincoln, Newcastle, Winchester (5%)	
South West (26)	London (36%)	Canterbury (18%)	Lincoln, Salisbury, Thetford, Winchester, York (9%)		

Figure 4.56 Mint attribution of PIV finds by region

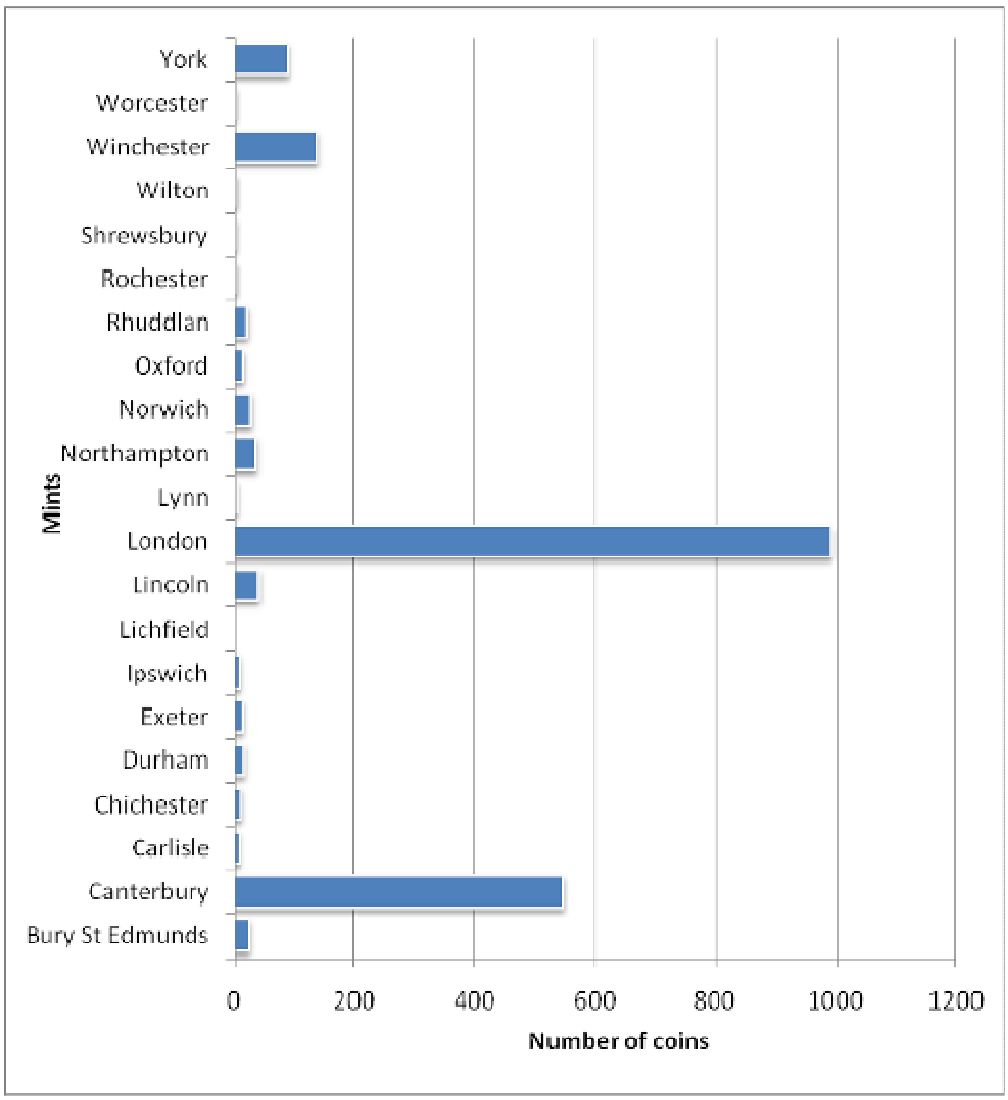


Figure 4.58 PV coins by mint.

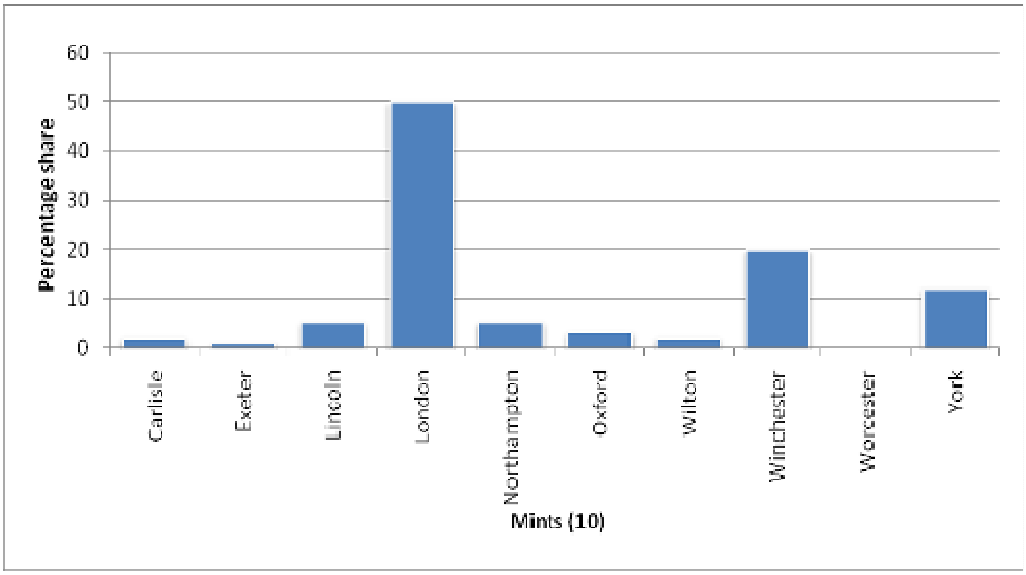


Figure 4.59 Class 1 PV coins by mint.

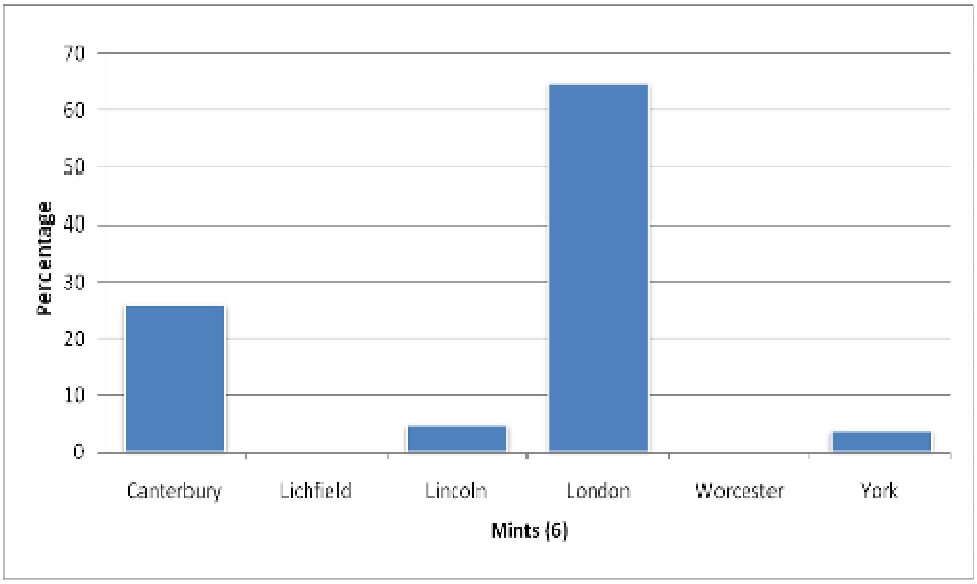


Figure 4.60 Class 2 PV coins by mint.

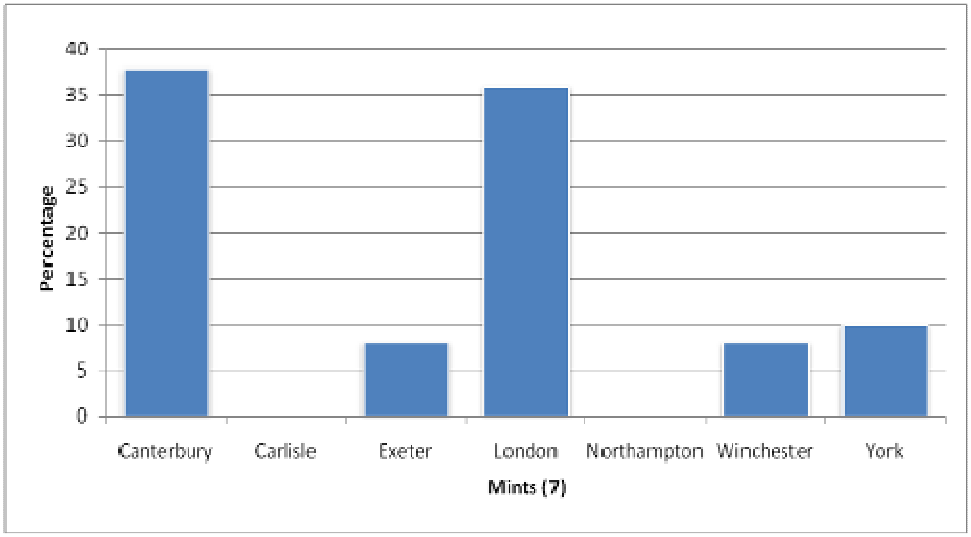


Figure 4.61 Class 3 PV coins by mint.

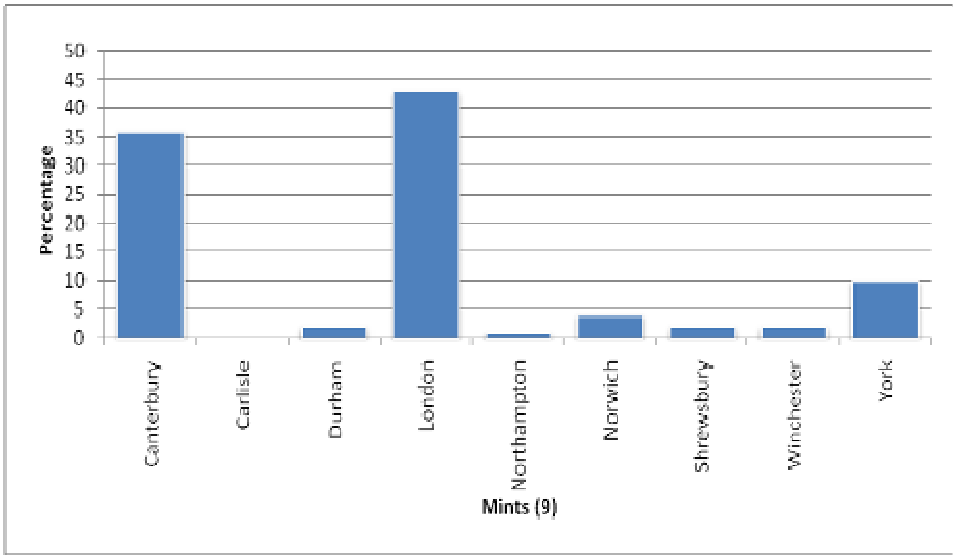


Figure 4.62 Class 4 PV coins by mint.

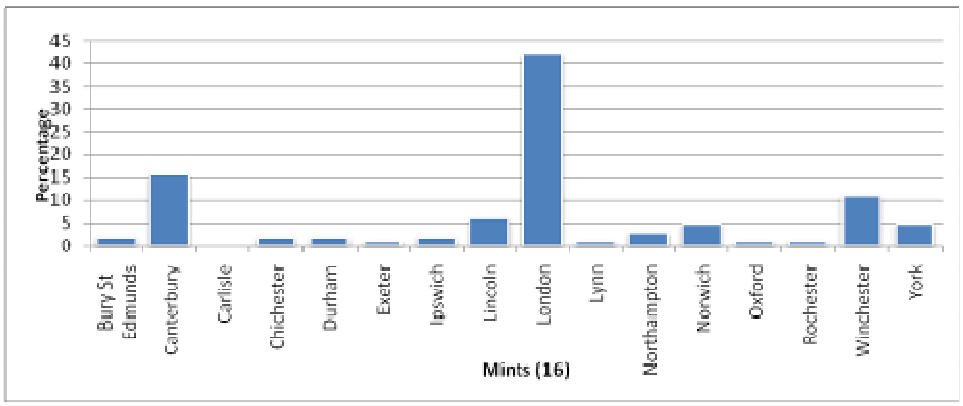


Figure 4.63 Class 5 PV coins by mint.

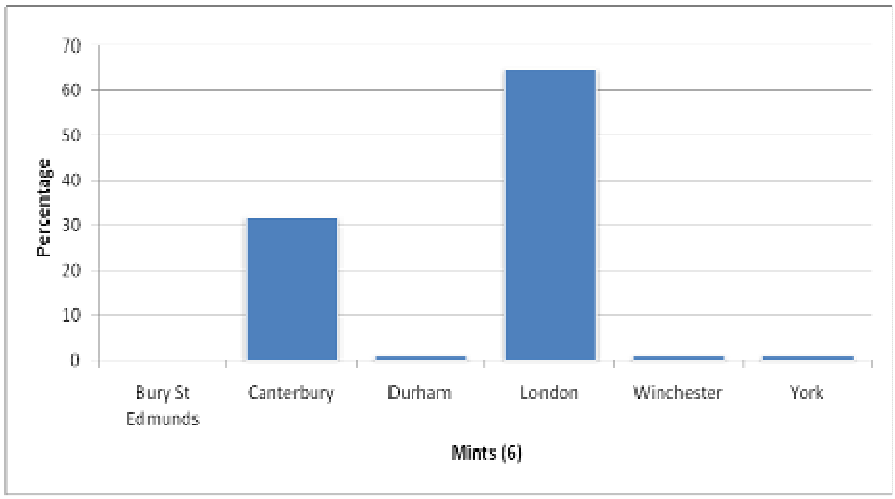


Figure 4.64 Class 6 PV coins by mint.

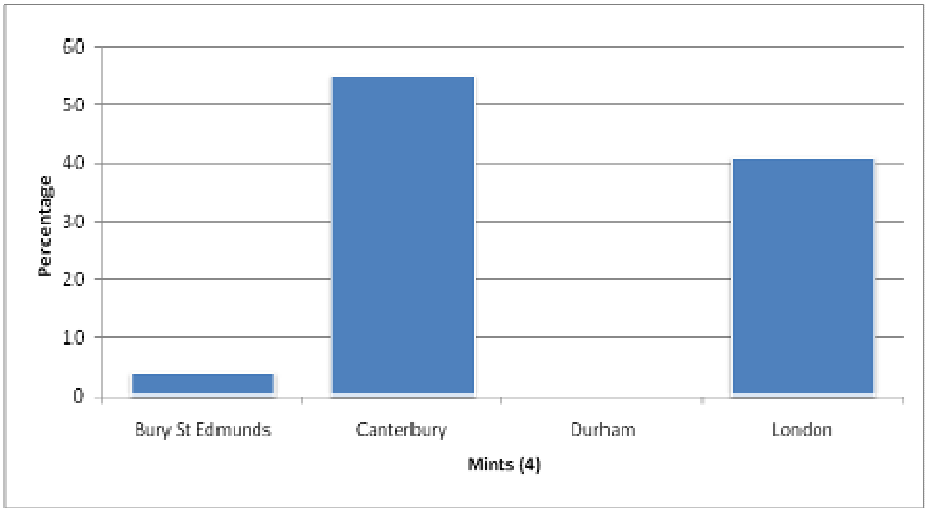


Figure 4.65 Class 7 PV coins by mint.

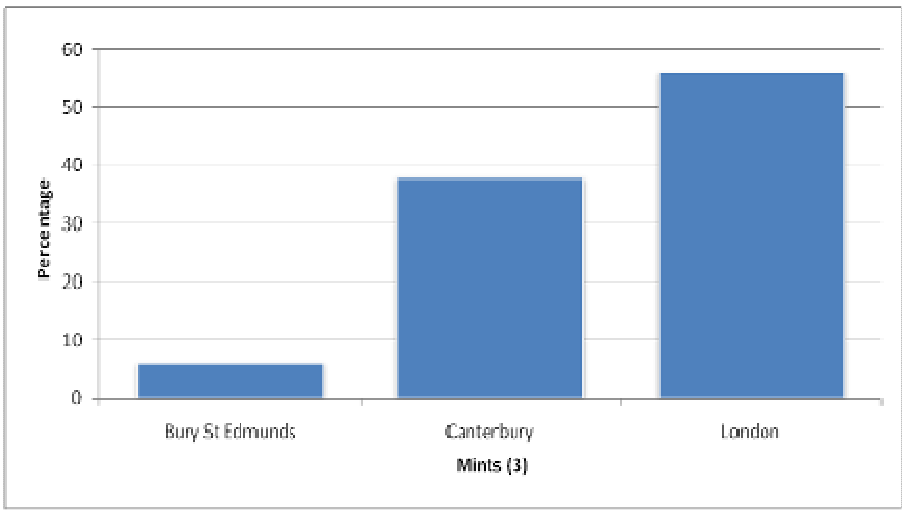


Figure 4.66 Class 8 PV coins by mint.

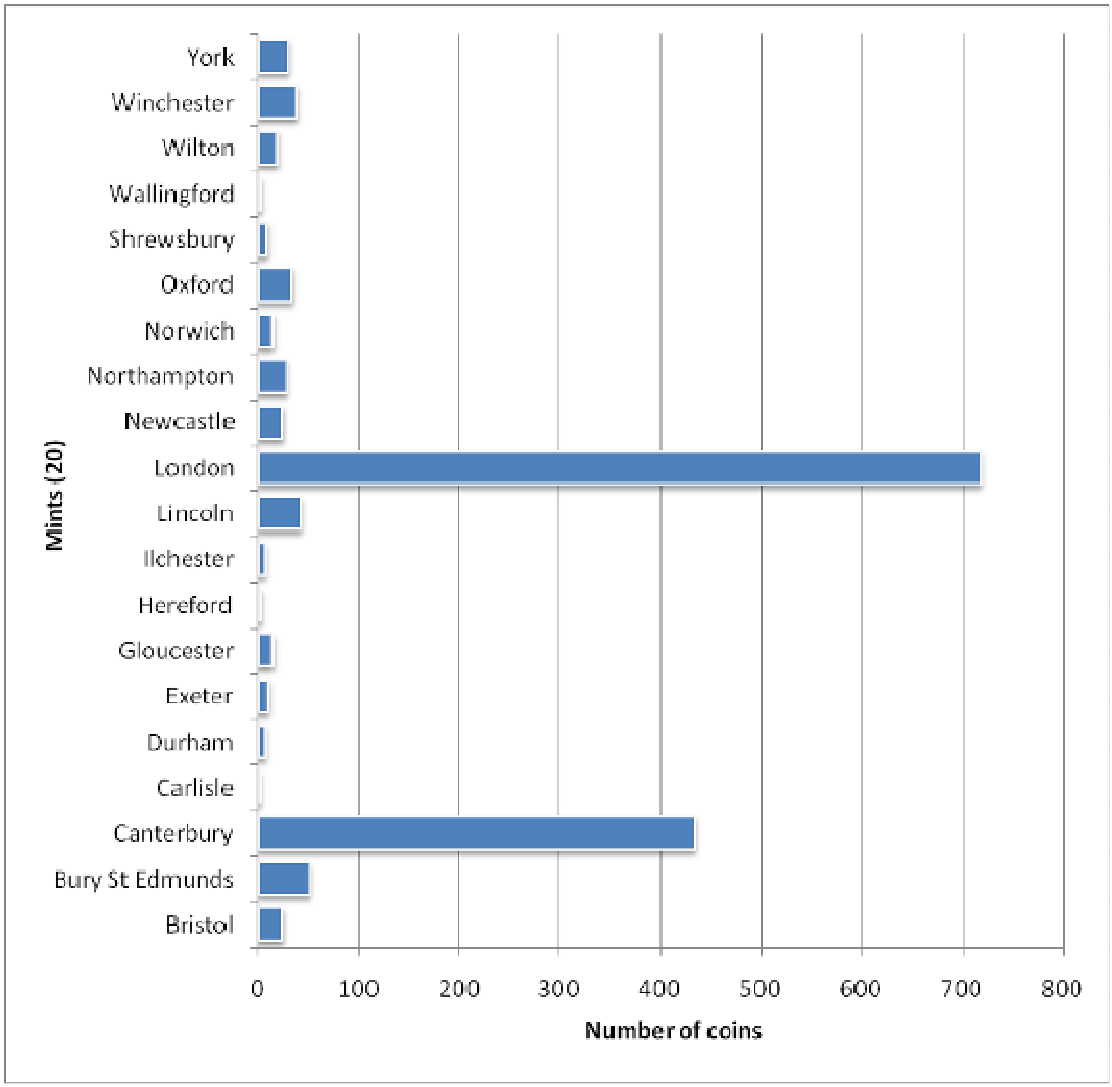


Figure 4.67 PVI coins by mint ∑=1506.

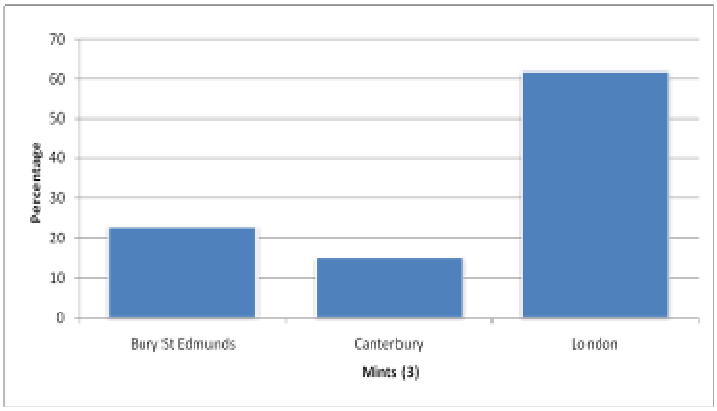


Figure 4.68 Class 1 PVI coins by mint ∑=13.

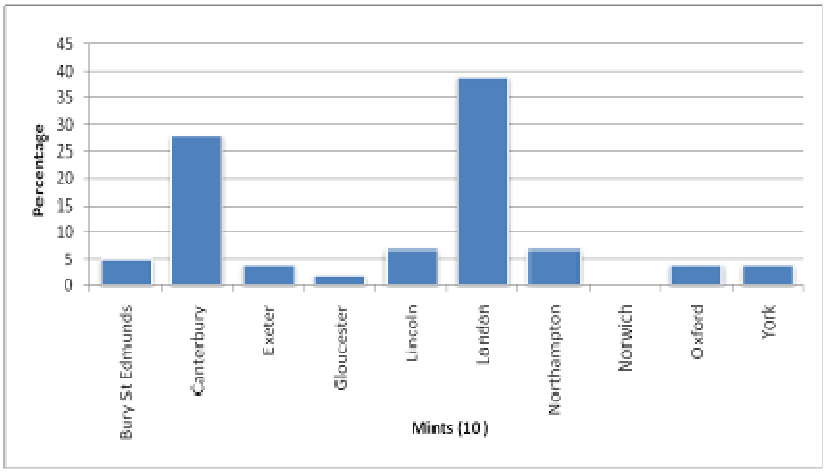


Figure 4.69 Class 2 PVI coins by mint ∑=57.

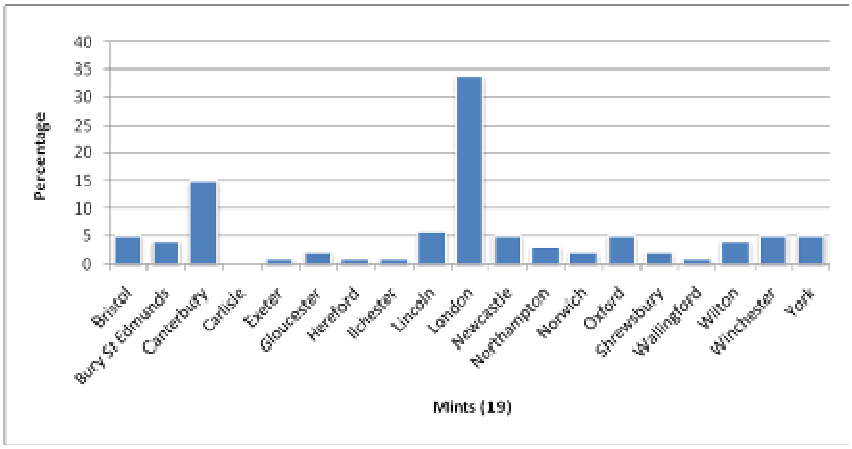


Figure 4.70 Class 3 PVI coins by mint ∑=471.

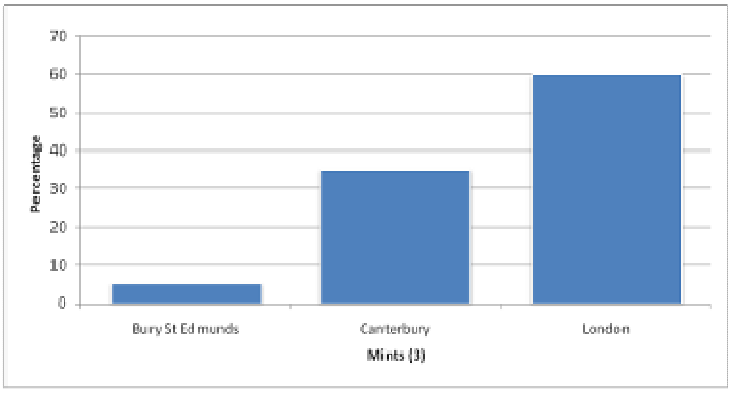


Figure 4.71 Class 4 PVI coins by mint ∑=20.

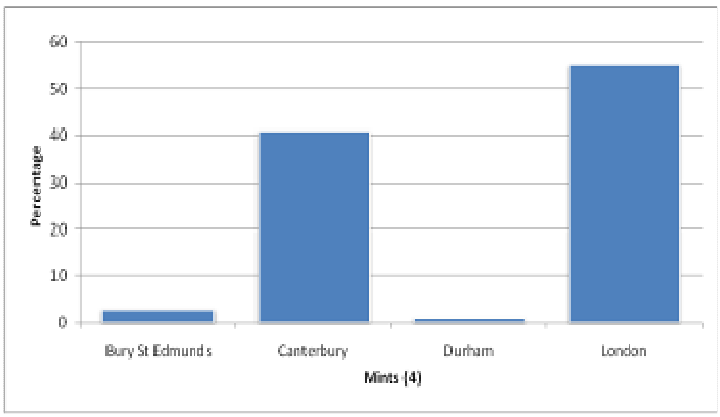


Figure 4.72 Class 5 PVI coins by mint ∑=544.

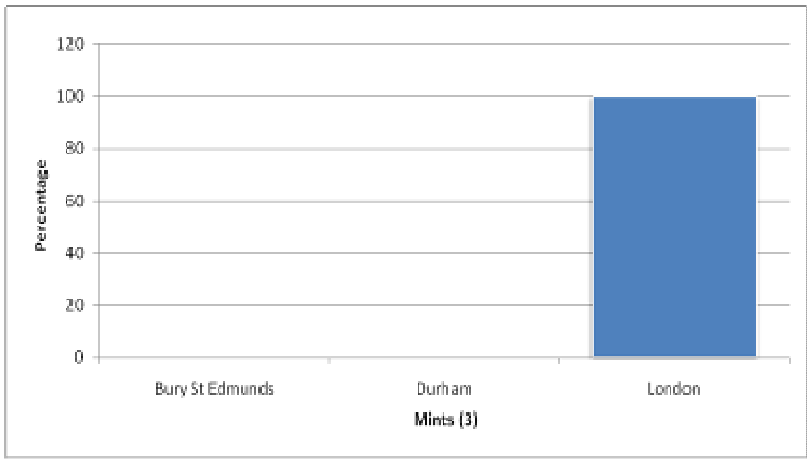


Figure 4.73 Class 7 PVI coins by mint ∑=1.

Denomination/period	1360	1420	1470	1544
Penny:				
1279-1351	*c.*50-60%	*c.*20-30%	*c.*5-10%	0%
1351-1412	*c.*40-50%	*c.*60-70%	*c.*15-20%	0%
1412-64	-	*c.*5%	*c.*50-70%	0%
1464-1526	-	-	*c.*5-10%	*c.*30-40%
1526-44	-	-	-	*c.*60-70%

Figure 5.1 Carry-over of later medieval coins (after Allen 2005b: 62).

Period	PAS finds	Single finds/year	Value per loss	Hoards	Hoards/ year	Excavation coins
VII (1279-1351)	5887	81.7	0.91*d.*	101	1.4	280
VIII (1351-1412)	1577	25.9	1.7*d.* silver	61	1	87
IX (1412-1464)	962	18.5	0.81*d.* silver	46	0.9	77
X (1464-1544)	1200	15	1.88*d.* silver	86	1.1	71

Figure 5.2 Summary table of coins by source and period in Phase C. The PAS finds do not account for the potential carry-over of coins from earlier periods into later ones. The excavated coins total includes only English coins securely dated to a period.

Class	*Date range (Allen 2003)*	*Mints active*	*No. of coins*
1a-d	May 1279-Nov/Dec 1279	1	66
2a-b	Nov/Dec 1279-*c*. May 1280	5	90
3a-g	*c*. May 1280-*c.* 1282	9	335
4a-e	*c.* 1282/3-*c.* 1289	4	188
5a-b	*c.* 1289-*c.* 1290	4	22
6a-b	*c.* 1293-*c.* 1294	4	11
7a-b	*c.* 1290-*c.* 1293	4	7
8	*c.* 1294-*c.* 1299	2	9
9a-c	*c.* 1299-late 1300	9	284
10	Late 1300-*c*.1310	5	1057
11	*c.* 1310-*c*. 1314	4	183
12	*c.* 1314	4	12
13	*c.* 1314-*c.* 1317/18	4	29
14	1317/18-*c.* 1319	4	32
15	*c.* 1319-1332x1338	5	39
1-9		-	185
10-11		-	72
1-15		-	62
10-15		-	42
Florin	1344-1351	5	149
Uncertain	-	-	1630
TOTAL			4504

Figure 5.3. PVII pennies in the dataset by class.

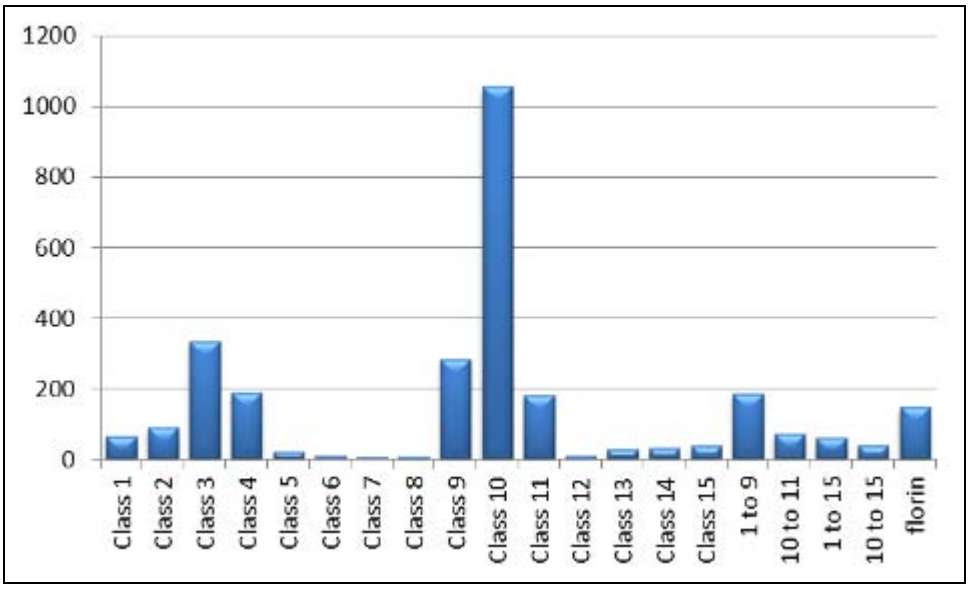


Figure 5.4 PVII pennies in the dataset. 1630 were not attributed to any class

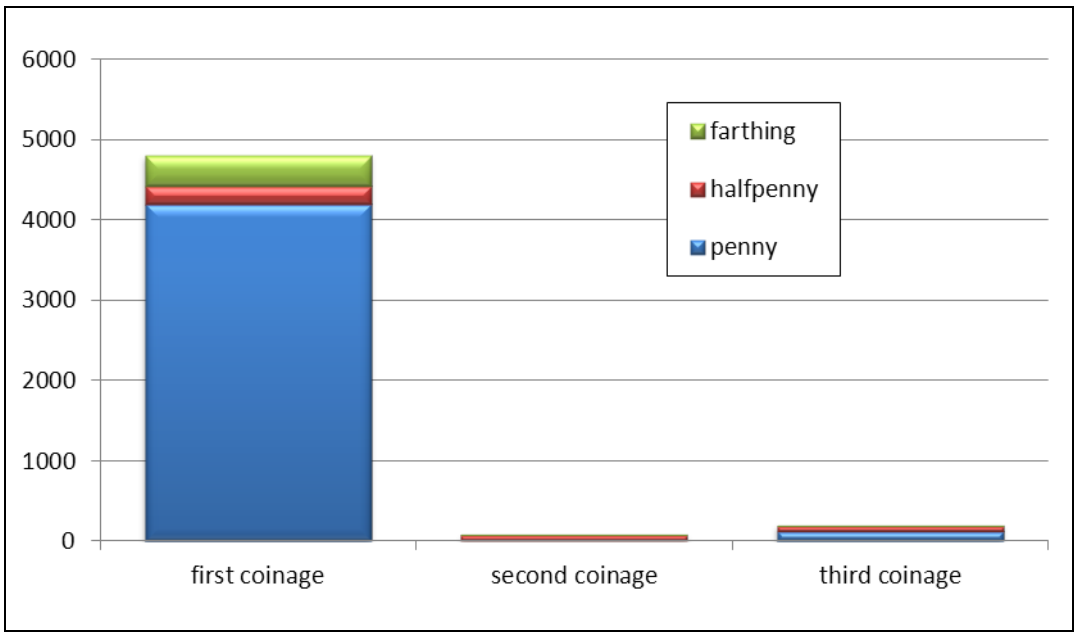


Figure 5.5 PVII coins in the dataset by internal chronology.

	Noble	Half-noble	Quarter-noble	Groat	Half-groat	Penny	Halfpenny	Farthing	Unknown	Total
Edward III										
Pre-treaty (1351-1361)	4	4	11	170	133	222	4	0	3	551
Treaty (1361-1369)	1	6	28	11	18	63	9	2	1	139
Post-treaty (1369-1377)	0	1	0	8	10	64	2	2	0	87
Fourth coinage (1351-1377)	3	8	8	110	127	199	15	4	2	476
Richard II	0	0	4	3	3	118	153	7	2	290
Henry IV *Heavy coinage (1399-1412)*	0	0	0	0	0	2	3	0	1	6
Uncertain ruler	0	0	2	2	2	18	2	2	0	28
Total	8	19	53	304	293	686	188	17	9	1577

Figure 5.6 Period VIII coins by ruler, type and denomination

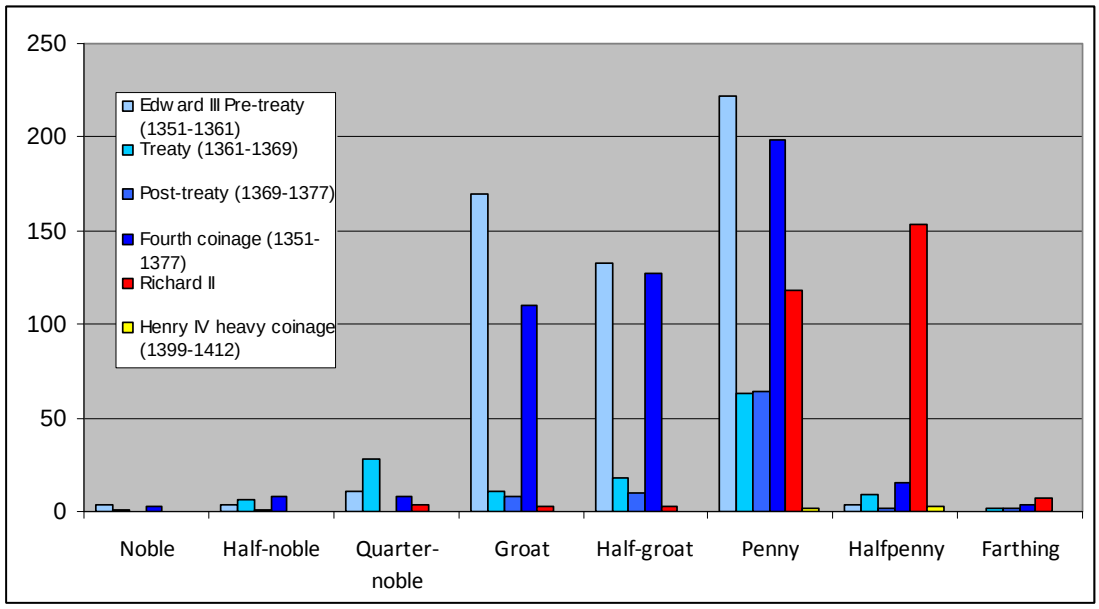


Figure 5.7 PVIII coins by coinage and denomination.

	Noble	Half noble	Quarter noble	Groat	Half groat	Penny	Half penny	Farthing	Unknown	Total
Henry IV *Light coinage*	0	0	0	1	0	5	5	1	0	12
Henry V	4	0	4	23	12	123	56	4	1	227
Henry VI (first reign)										
Annulet (c. 1422-7)	0	2	2	83	47	63	53	0	0	250
Rosette-Mascle (c. 1427-30)	0	0	0	39	13	36	16	0	0	104
Pinecone-Mascle (c. 1430-4)	0	0	0	8	3	8	9	0	0	28
Leaf-mascle (c. 1434-5)	0	0	0	0	0	0	3	0	0	3
Leaf-trefoil (c. 1435-8)	0	0	1	0	0	1	3	0	0	5
Trefoil (c. 1438-43)	0	0	0	3	0	1	2	0	0	6
Leaf-pellet (c. 1445-54)	0	0	0	0	0	8	9	2	0	19
Cross-pellet (c. 1454-60)	0	0	0	0	0	5	6	0	0	11
Uncertain	1	0	3	39	23	76	84	10	10	246
Sub-total Henry VI	(1)	(2)	(6)	(172)	(86)	(198)	(185)	(12)	(10)	(672)
Edward IV (first reign) *Heavy coinage*	1	0	0	9	0	15	8	0	0	33
Uncertain ruler	0	0	0	0	0	9	5	4	0	18
Total	6	2	10	205	98	350	259	21	11	962

Figure 5.8 Period IX coins by ruler, type and denomination.

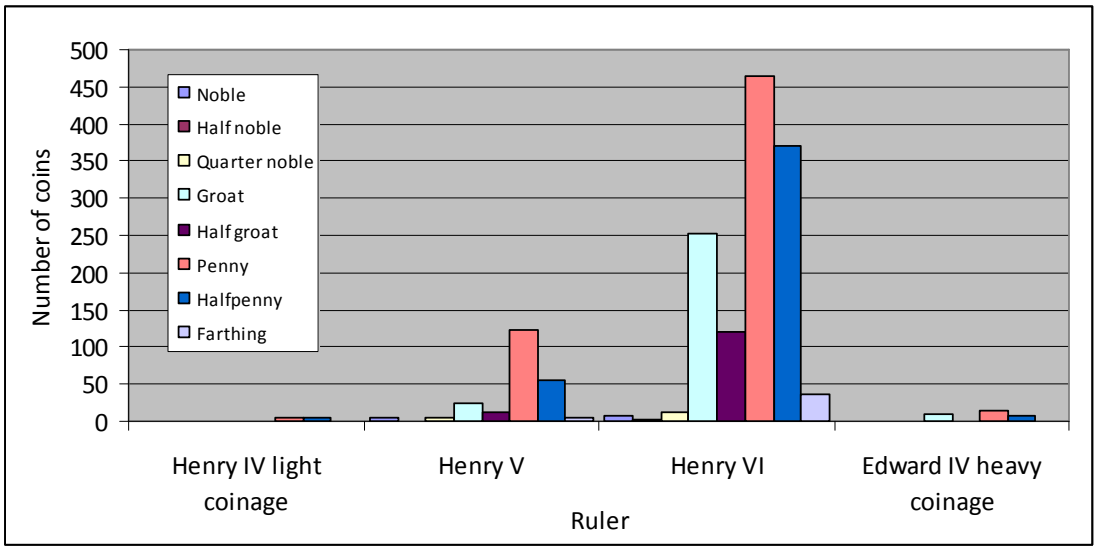


Figure 5.8a PIX coins by ruler and denomination.

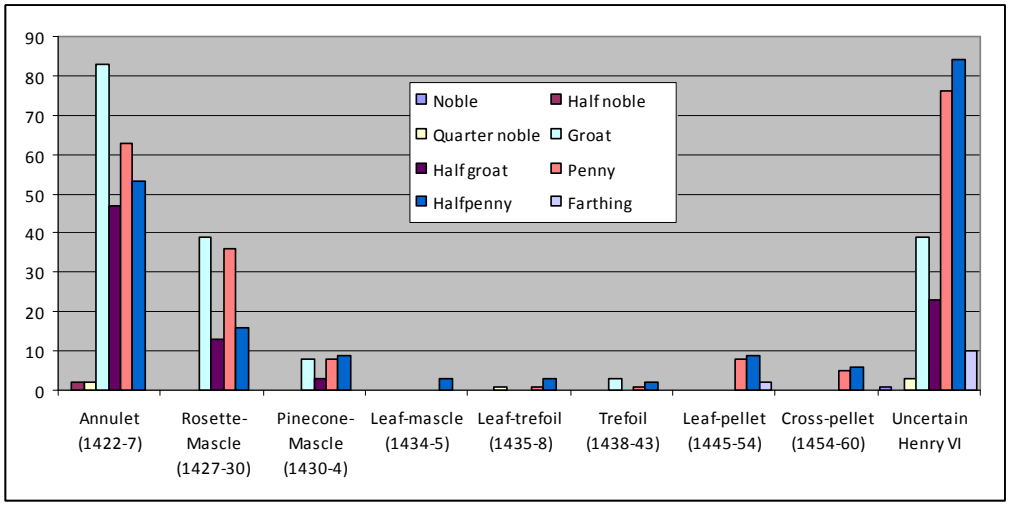


Figure 5.8b Internal division of Henry VI's coinage by class and denomination. No coins of the Trefoil-pellet (*c*.1443-45), unmarked (*c* .1445-54) or Lis-pellet (*c* .1454-60) are identified in the corpus.

Ruler and *coinage*	Ryal	Half ryal	Quarter ryal	Angel	Half angel	Groat	Half groat	Penny	Halfpenny	Farthing	Unknown	TOTAL
Edward IV (first reign) *light coinage*	5	2	1	0	0	89	28	46	25	3	0	199
Edward IV (second reign)	0	0	0	4	0	38	23	126	20	0	1	212
Richard III	0	0	0	1	0	7	0	15	2	0	0	25
Henry VII	0	0	0	1	1	63	181	146	47	10	2	451
Henry VIII *First coinage*	0	0	0	1	0	1	3	1	7	0	0	13
Henry VIII *Second coinage*	0	0	0	0	0	22	15	12	2	1	0	52
Henry VIII PX uncertain	0	0	0	1	0	8	17	30	12	0	1	69
Uncertain ruler	0	0	0	0	0	1	3	15	4	0	2	0
TOTAL	5	2	1	8	1	229	270	391	119	14	6	1021

Figure 5.9 Period X English coins by ruler, type and denomination.

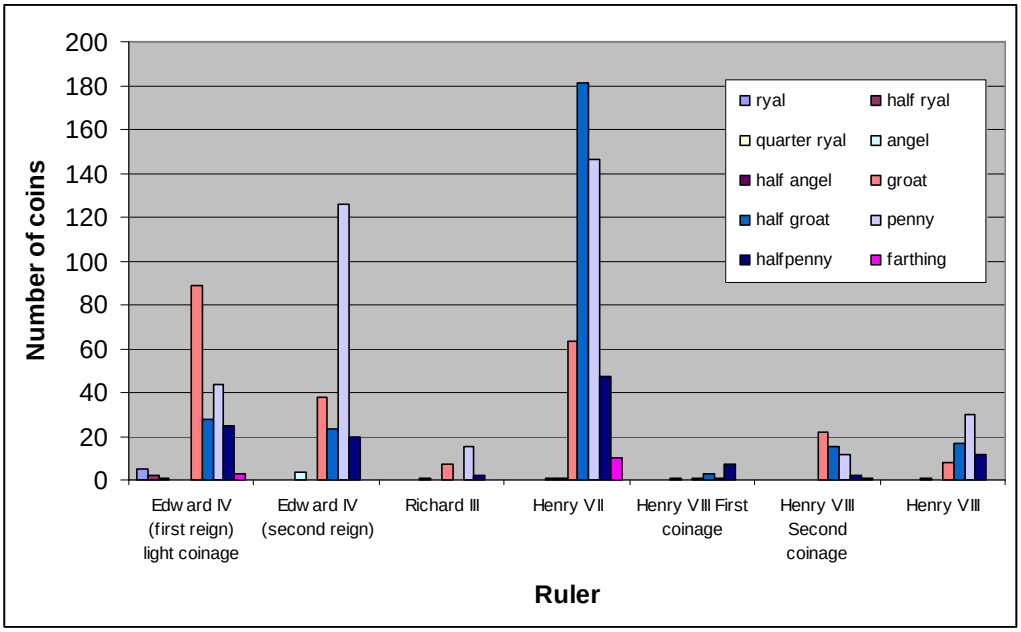


Figure 5.10 PX coins by coinage and denomination.

Period	No. of hoards	Per year	Minimum value	Maximum value	Mean value	All silver	All gold	Mixed	Other	% non coins
VII	102	1.4	2*d.*	£1500	£1 14*s.* 9½*d.*[19]	99	1	0	2	1%
VIII	65	1.1	2*d.*	£74 13*s.* 4*d*	£8 13*s.* 4½*d.*	34	19	8	4	0%
IX	47	0.9	3*d.*	*c.*£400	£9 7*s.* 1½*d.*	27	11	7	2	8.5%
X	88	1.5	1½*d.*	*c.*£50	£5 17*s.* 11½*d.*	54	18	12	4	3.4%

Figure 5.11 Summary table of Phase C hoards.

[19] This figure excludes the abnormally large Tutbury hoard.

REGION and *county*	Period VII Coins (%)	Period VIII Coins (%)	Period IX Coins (%)	Period X Coins (%)	Total Coins (%)
NORTH	**465 (8.1%)**	**127 (8%)**	**64 (6.6%)**	**112 (9.6%)**	**768 (8.1%)**
County Durham	11 (2.4%)	8 (6.3%)	4 (6.3%)	5 (4.5%)	28 (3.6%)
Cumbria	19 (4.1%)	6 (4.7%)	2 (3.1%)	5 (4.5%)	32 (4.2%)
East Riding	102 (21.9%)	28 (22%)	6 (9.4%)	21 (18.8%)	157 (20.4%)
Lancashire	43 (9.2%)	12 (9.5%)	11 (17.2%)	19 (17%)	85 (11.1%)
North Yorkshire	250 (53.8%)	64 (50.4%)	37 (57.8%)	53 (47.3%)	404 (52.6%)
Northumberland	23 (4.9%)	4 (3.1%)	4 (6.3%)	7 (6.3%)	38 (4.9%)
West Yorkshire	17 (3.7%)	5 (3.9%)	0 (0%)	2 (1.8%)	24 (3.1%)
EAST CENTRAL	**1057 (18.3%)**	**269 (17%)**	**161 (16.8%)**	**189 (16.2%)**	**1676 (17.7%)**
Bedfordshire	44 (4.2%)	10 (3.7%)	5 (3.1%)	6 (3.2%)	65 (3.9%)
Leicestershire and Rutland	263 (24.9%)	91 (33.8%)	49 (30.4%)	48 (25.4%)	451 (26.9%)
Lincolnshire	506 (47.9%)	116 (43.1%)	62 (38.5%)	84 (44.4%)	768 (45.8%)
Northamptonshire	119 (11.3%)	24 (8.9%)	25 (15.5%)	24 (12.7%)	192 (11.5%)
Nottinghamshire	107 (10.1%)	22 (8.2%)	17 (10.6%)	21 (11.1%)	167 (10%)
South Yorkshire	18 (1.7%)	6 (2.2%)	3 (1.9%)	6 (3.2%)	33 (2%)
WEST CENTRAL & WALES	**794 (13.8%)**	**227 (14.3%)**	**141 (14.7%)**	**193 (16.5%)**	**1355 (14.3%)**
Avon	7 (0.9%)	2 (0.9%)	3 (2.1%)	1 (0.5%)	13 (1%)
Cheshire	91 (11.5%)	23 (10.1%)	18 (12.8%)	22 (11.4%)	154 (11.4%)
Derbyshire	32 (4%)	6 (2.6%)	4 (2.8%)	8 (4.1%)	50 (3.7%)
Gloucestershire	83 (10.5%)	20 (8.8%)	8 (5.7%)	10 (5.2%)	121 (8.9%)
Herefordshire	20 (2.5%)	6 (2.6%)	1 (0.7%)	8 (4.1%)	35 (2.6%)
Shropshire	76 (9.6%)	22 (6.7%)	6 (4.3%)	13 (6.7%)	117 (8.6%)
Staffordshire	91 (11.5%)	26 (11.4%)	14 (9.9%)	25 (13%)	156 (11.5%)
Wales	108 (13.6%)	31 (13.7%)	29 (20.6%)	27 (14%)	195 (14.4%)
Warwickshire	206 (25.9%)	65 (28.6%)	45 (31.9%)	57 (29.5%)	373 (27.5%)
West Midlands	11 (1.4%)	4 (1.8%)	2 (1.4%)	5 (2.6%)	22 (1.6%)
Worcestershire	69 (8.7%)	23 (10.1%)	11 (7.8%)	17 (8.8%)	120 (8.9%)
EAST ANGLIA	**1624 (28.2%)**	**402 (25.4%)**	**247 (25.7%)**	**266 (22.8%)**	**2539 (26.8%)**
Cambridgeshire	92 (5.7%)	36 (9%)	18 (2.3%)	25 (9.4%)	171 (6.7%)
Essex	87 (5.4%)	38 (9.5%)	20 (8.1%)	29 (10.9%)	174 (6.9%)
Norfolk	673 (41.4%)	145 (36.1%)	80 (32.4%)	66 (24.8%)	964 (38%)
Suffolk	772 (47.5%)	183 (45.5%)	129 (52.2%)	146 (54.9%)	1230 (48.4%)
SOUTH EAST	**1500 (26%)**	**449 (28.3%)**	**289 (30.1%)**	**334 (28.6%)**	**2572 (27.1%)**
Berkshire	25 (1.7%)	7 (1.6%)	4 (1.4%)	4 (1.2%)	40 (1.6%)
Buckinghamshire	150 (10%)	37 (8.2%)	45 (15.6%)	34 (10.2%)	266 (10.3%)
East Sussex	137 (9.1%)	49 (10.9%)	25 (8.7%)	22 (6.6%)	233 (9.1%)
Greater London	20 (1.3%)	8 (1.8%)	3 (1%)	9 (2.7%)	40 (1.6%)
Hampshire	264 (17.6%)	95 (21.2%)	35 (12.1%)	69 (20.7%)	463 (18%)
Hertfordshire	53 (3.5%)	19 (4.2%)	12 (4.2%)	22 (6.6%)	106 (4.1%)
Isle of Wight	271 (18.1%)	62 (13.8%)	42 (14.5%)	45 (13.5%)	420 (16.3%)
Kent	282 (18.8%)	104 (23.2%)	47 (16.3%)	57 (17.1%)	490 (19.1%)
Oxfordshire	47 (3.1%)	13 (2.9%)	12 (4.2%)	10 (3%)	82 (3.2%)
Surrey	162 (10.8%)	25 (5.6%)	27 (9.3%)	38 (11.4%)	252 (9.8%)
West Sussex	89 (5.9%)	30 (6.7%)	37 (12.8%)	24 (5.9%)	180 (7%)
SOUTH WEST	**324 (5.6%)**	**110 (6.9%)**	**59 (6.1%)**	**75 (6.4%)**	**568 (6%)**
Cornwall	71 (21.9%)	12 (10.9%)	5 (8.5%)	12 (16%)	100 (17.6%)
Devon	25 (7.7%)	13 (11.8%)	5 (8.5%)	8 (10.7%)	51 (9%)
Dorset	58 (17.9%)	25 (22.7%)	10 (16.9%)	14 (18.7%)	107 (18.8%)
Somerset	59 (18.2%)	30 (27.3%)	15 (25.4%)	14 (18.7%)	118 (20.8%)
Wiltshire	111 (34.3%)	30 (27.3%)	24 (40.7%)	27 (9.3%)	192 (33.8%)
TOTAL COINS	**5764 (60.8%)**	**1584 (16.7%)**	**961 (10.1%)**	**1169 (12.3%)**	**9478**

Figure 5.12 Coins from each region and county in Phase C (1279-1544).

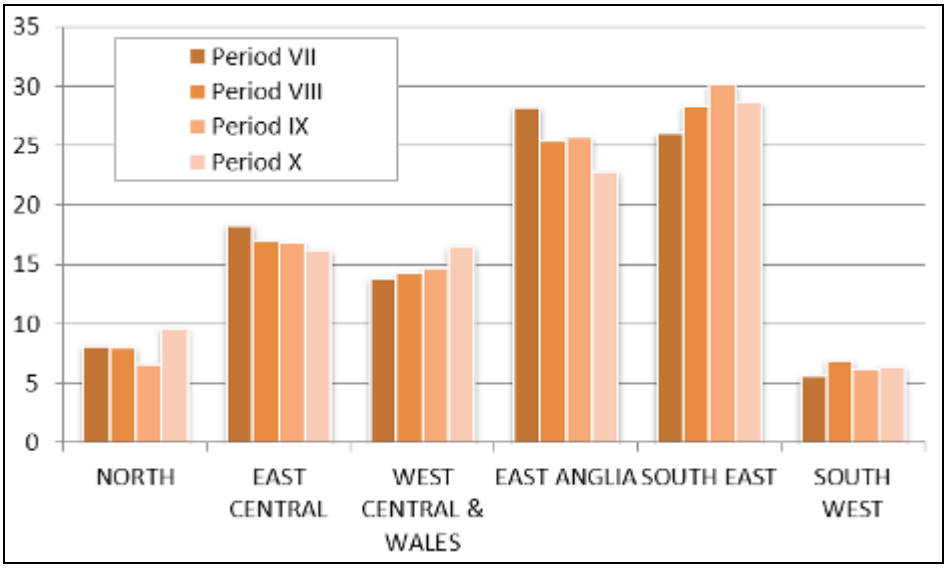


Figure 5.13 Regional share of coins over Phase C

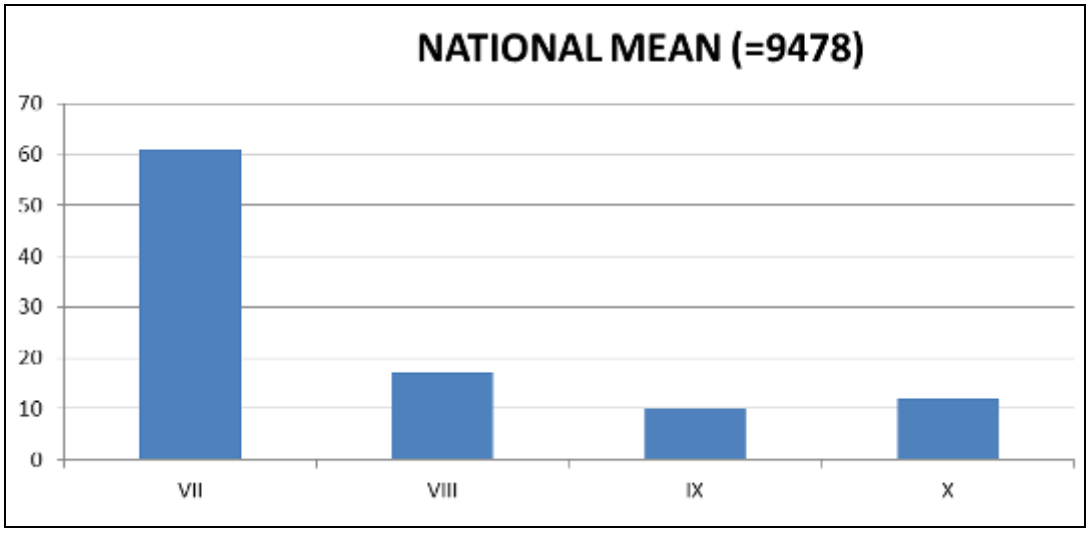
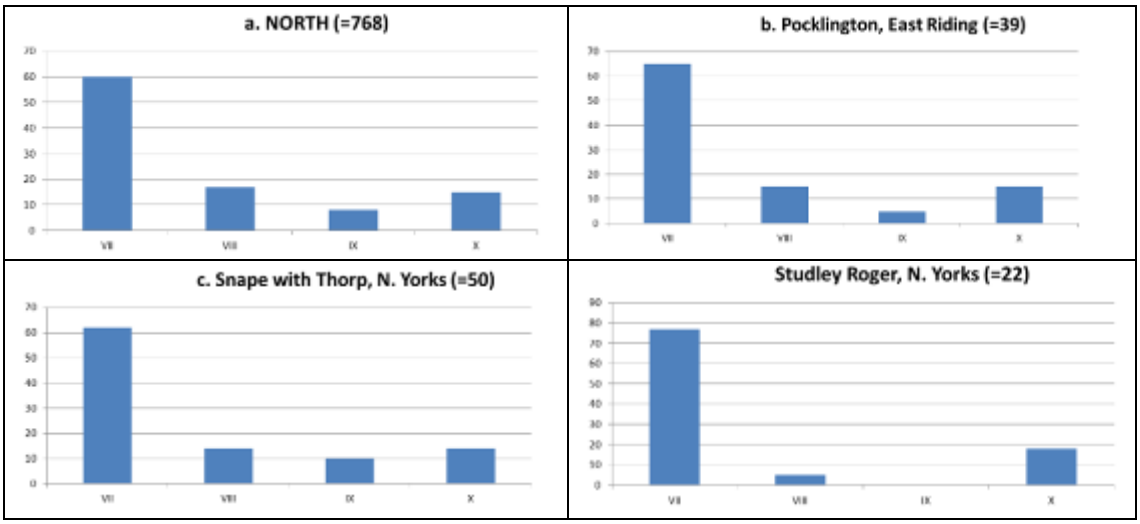


Figure 5.14 Phase C National Mean



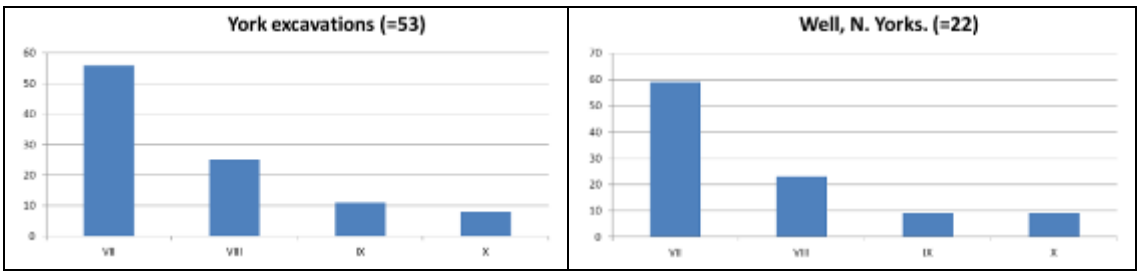


Figure 5.15 Phase C Northern regional assemblages

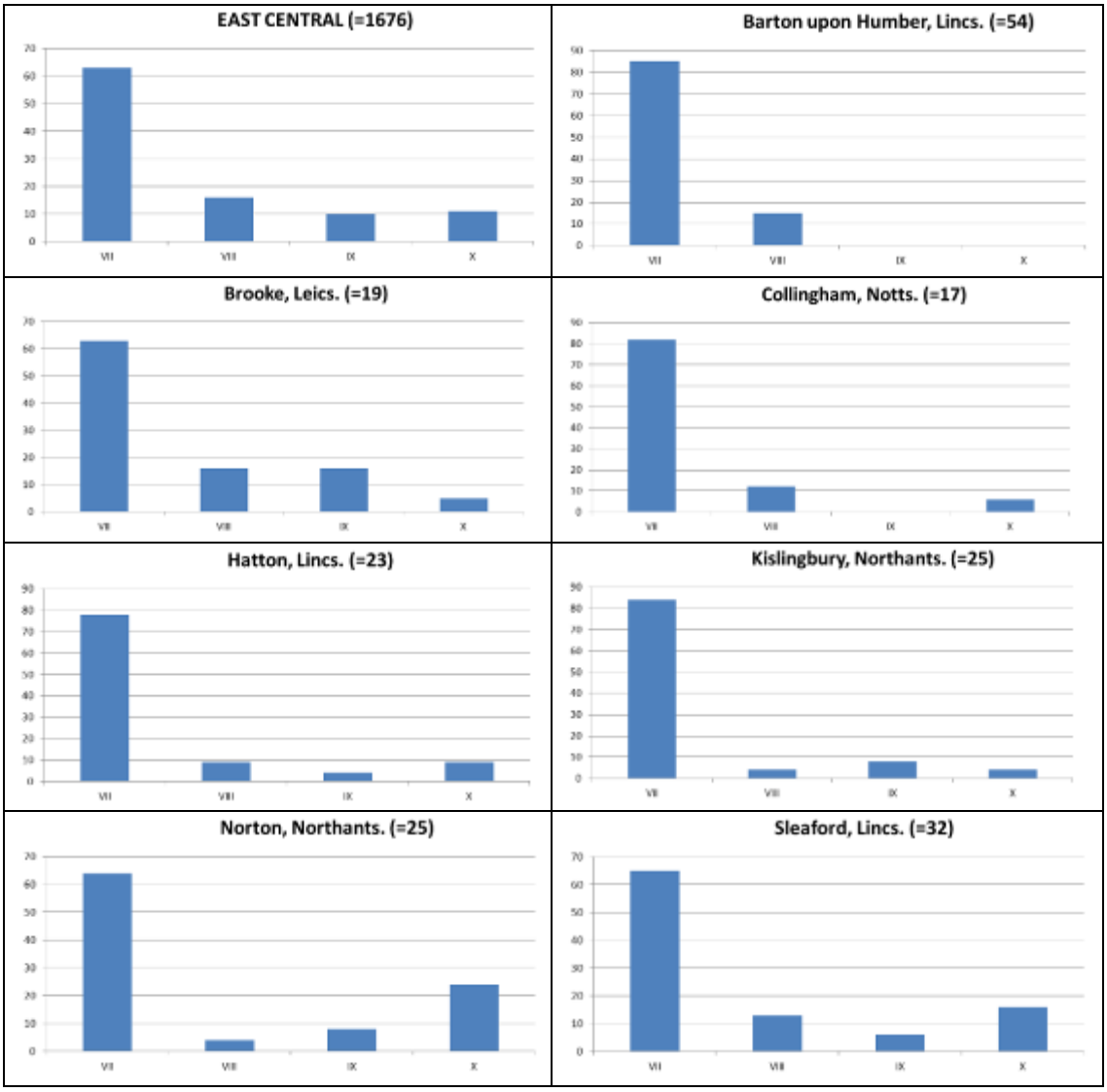
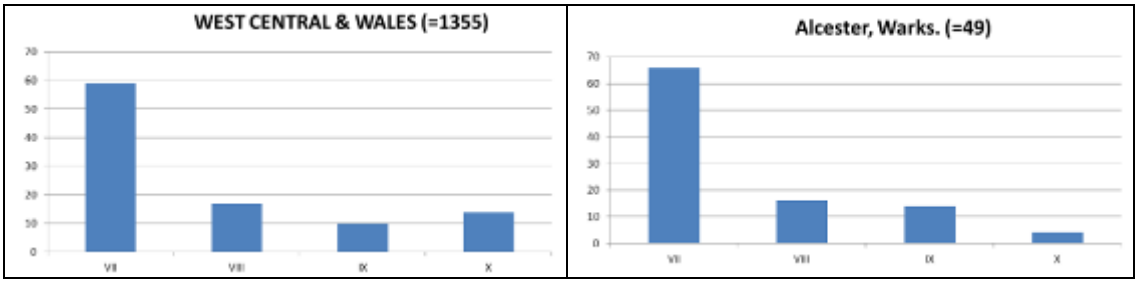


Figure 5.16 Phase C East Central regional assemblages



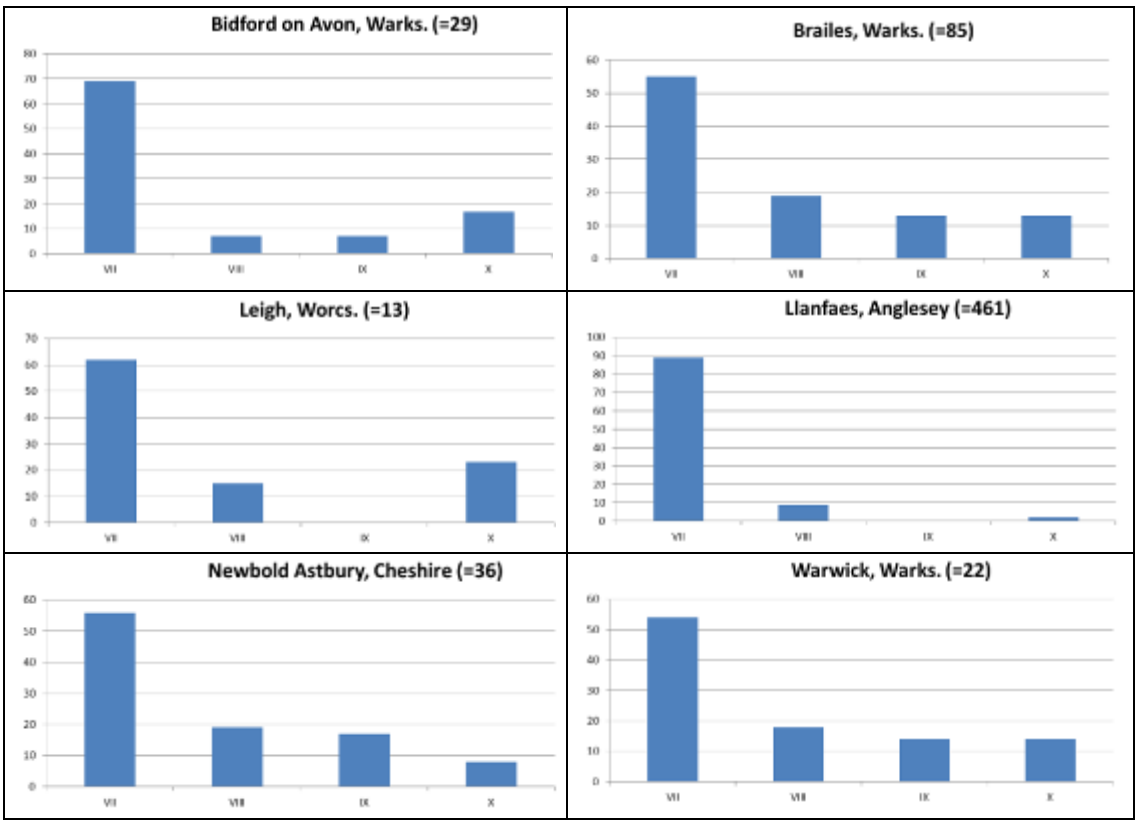


Figure 5.17 Phase C West Central and Wales regional assemblages

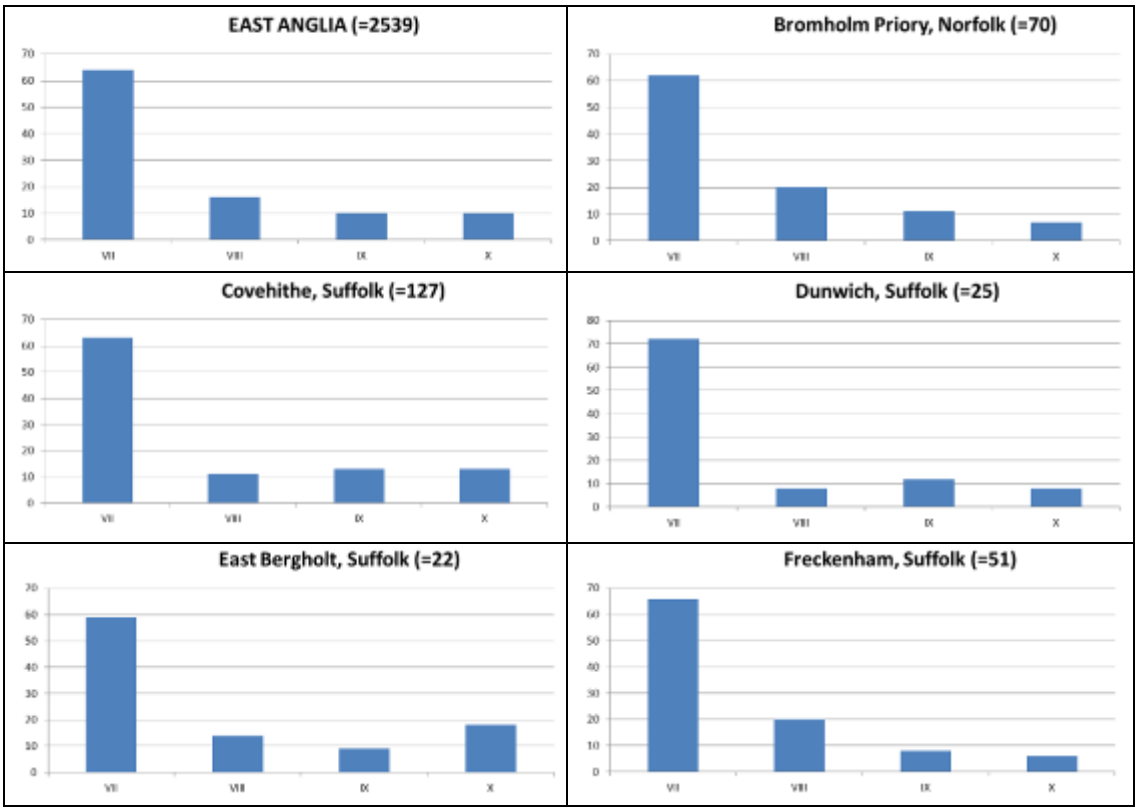
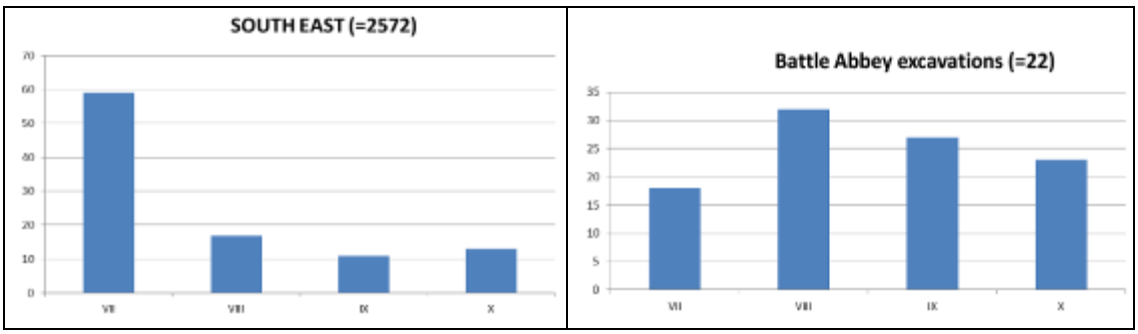




Figure 5.18 Phase C East Anglia regional assemblages



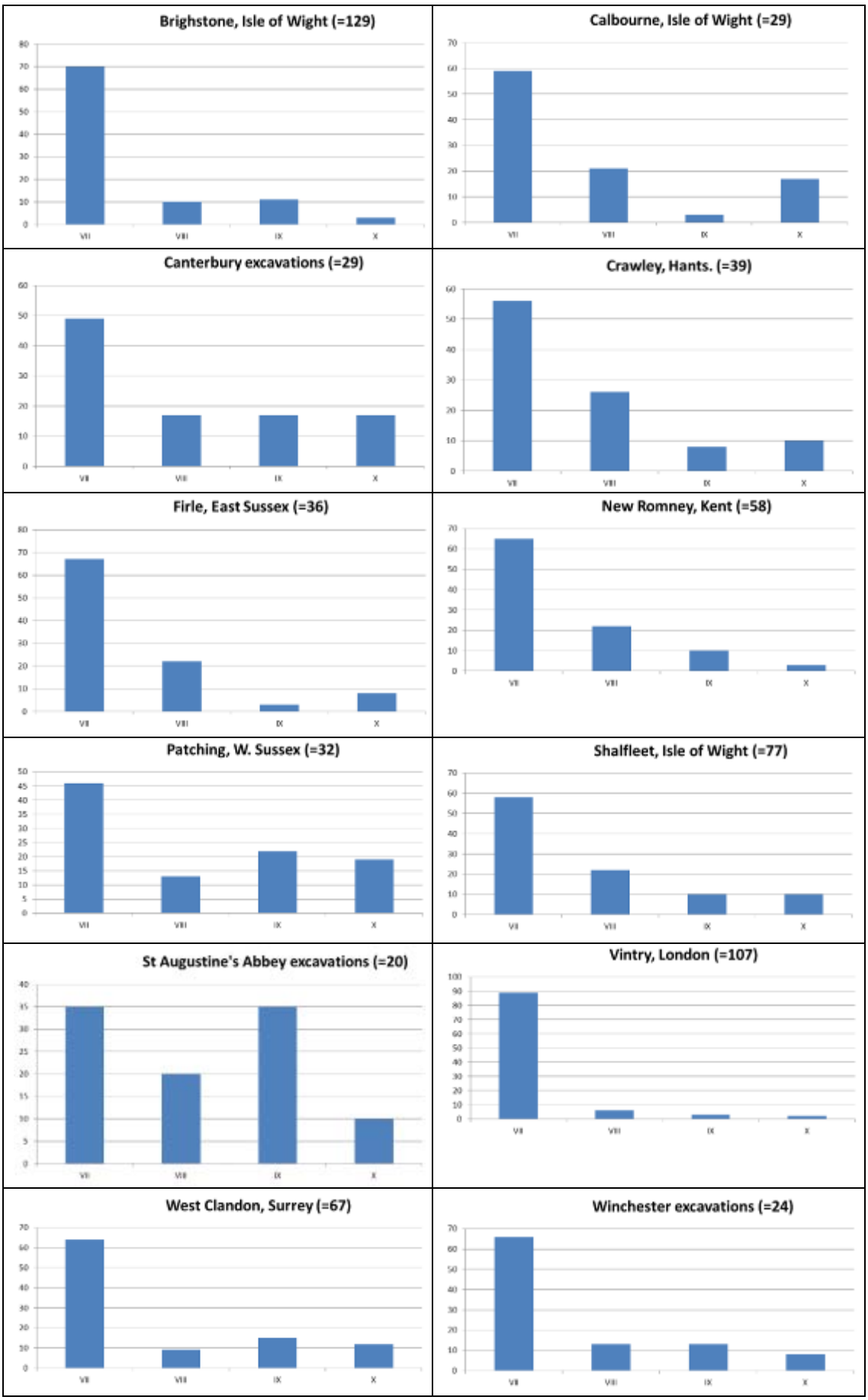


Figure 5.19 Phase C South East regional assemblages

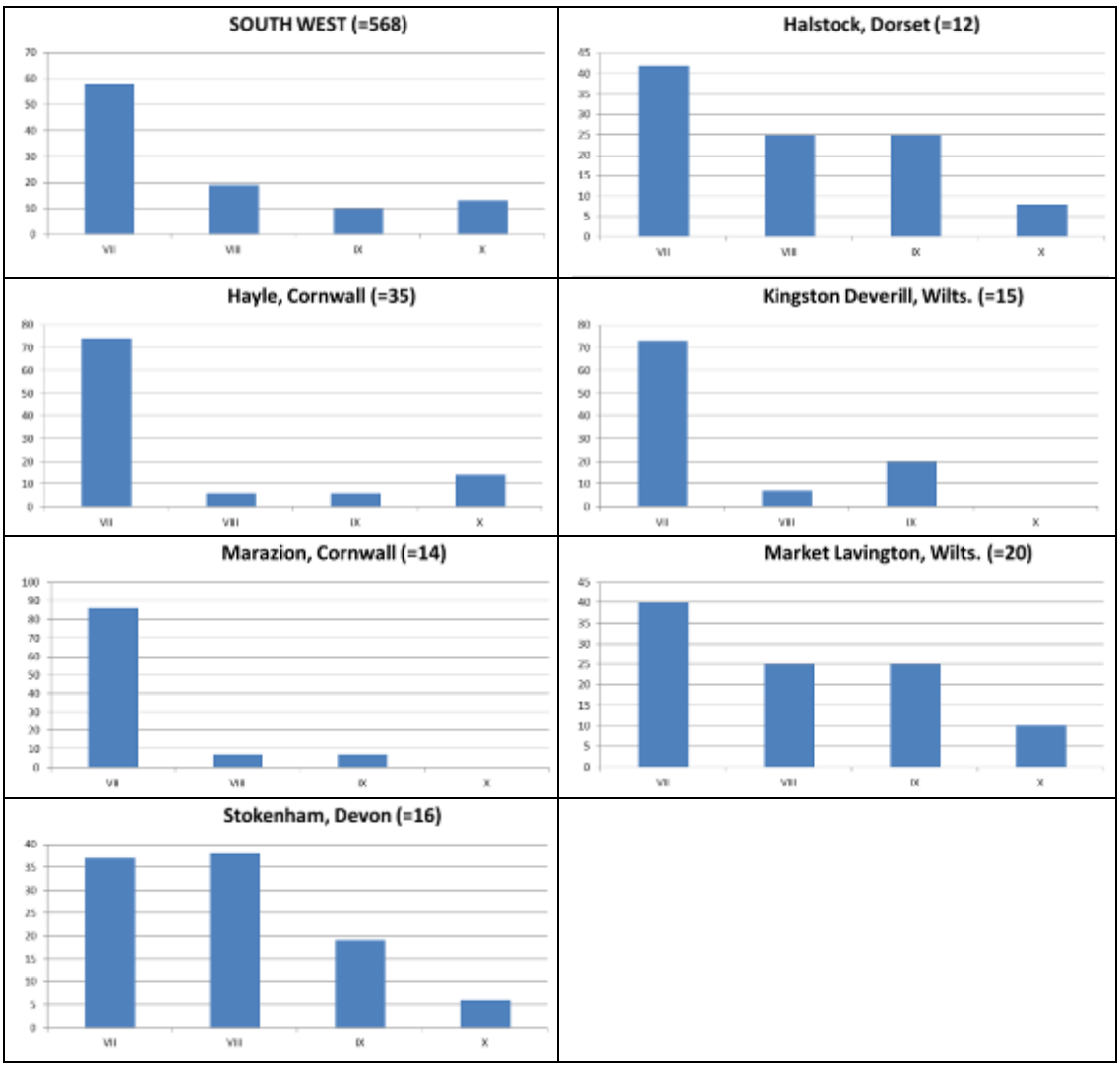


Figure 5.20 Phase C South West regional assemblages

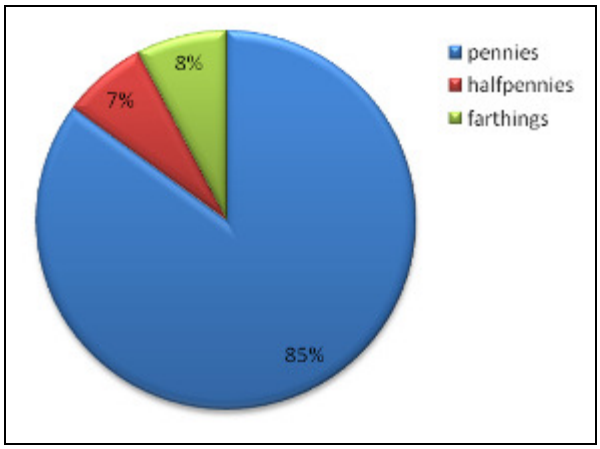


Figure 5.21 Period VII silver coins in the dataset.

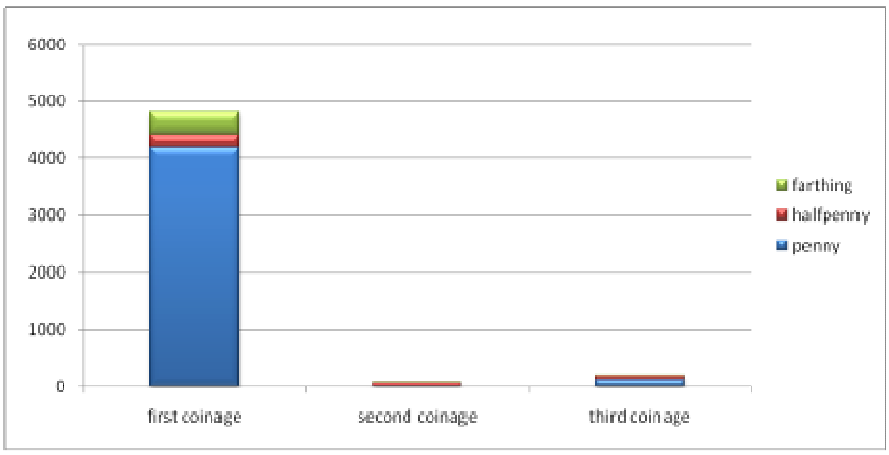


Figure 5.22 Period VII silver denominations.

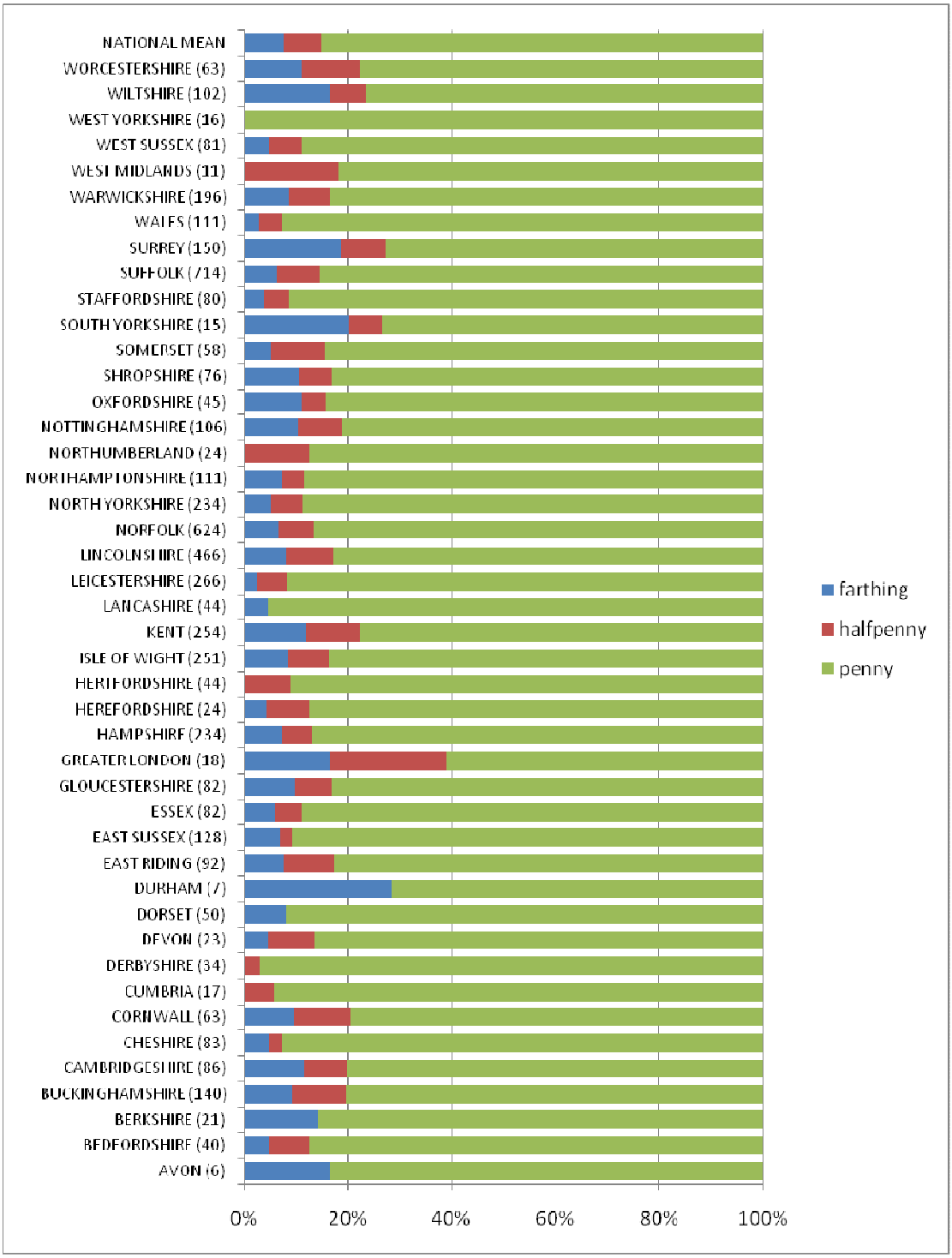


Figure 5.23 Period VII denominations by county.

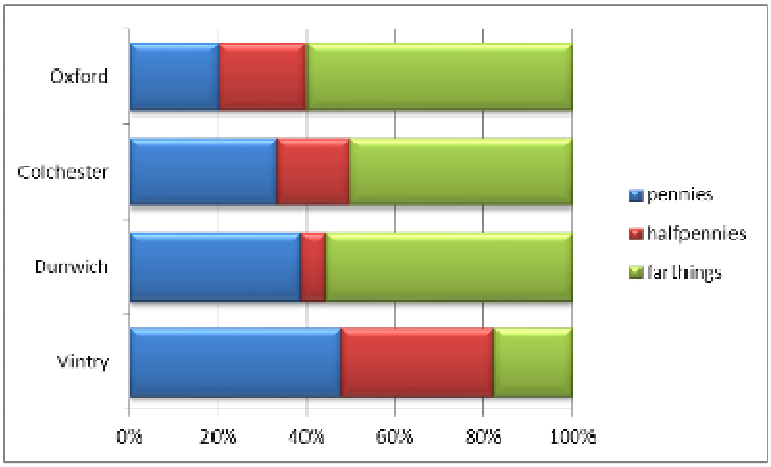


Figure 5.24 Denominational profiles from selected urban assemblages.

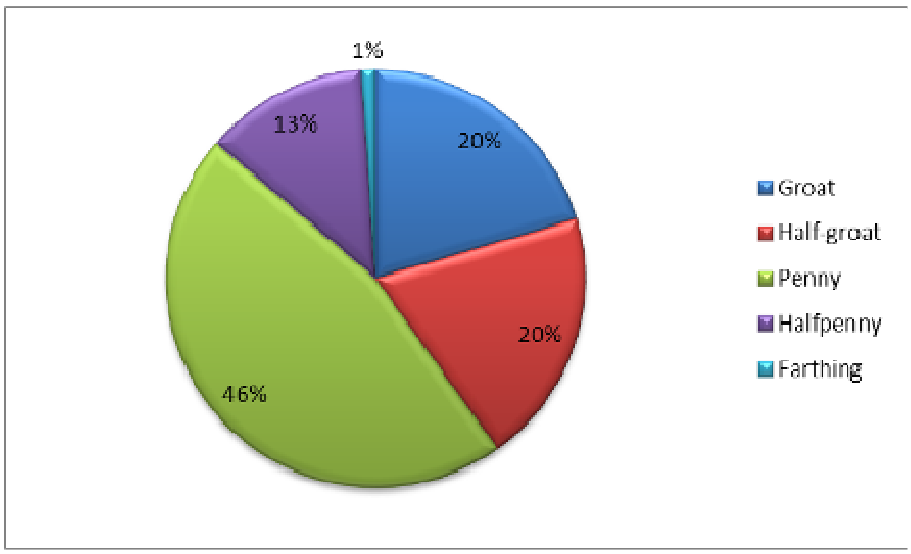


Figure 5.25 Silver denominations in PVIII.

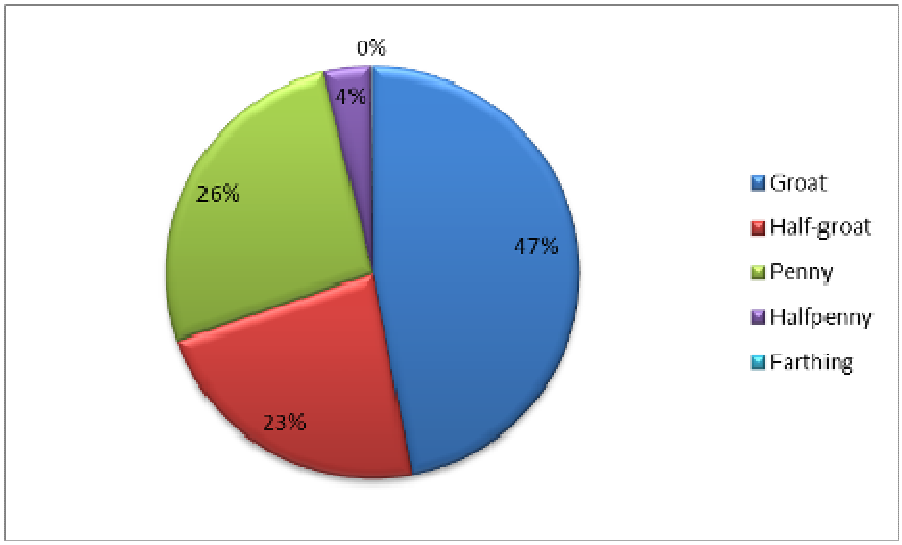


Figure 5.26 Silver denominations in PVIII by value in pence.

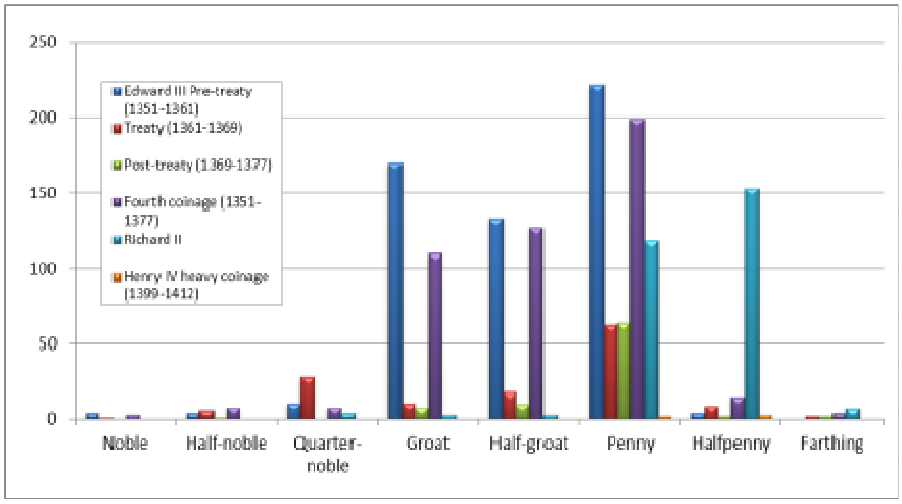


Figure 5.27 Denominational profile of PVIII coins by issuer.

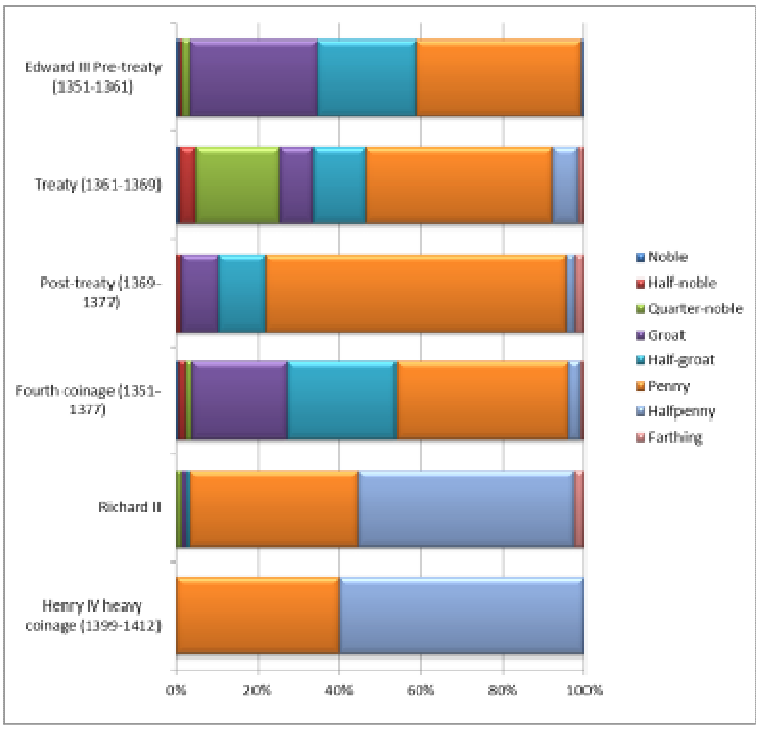


Figure 5.28 Denominational profile of PVIII coins.

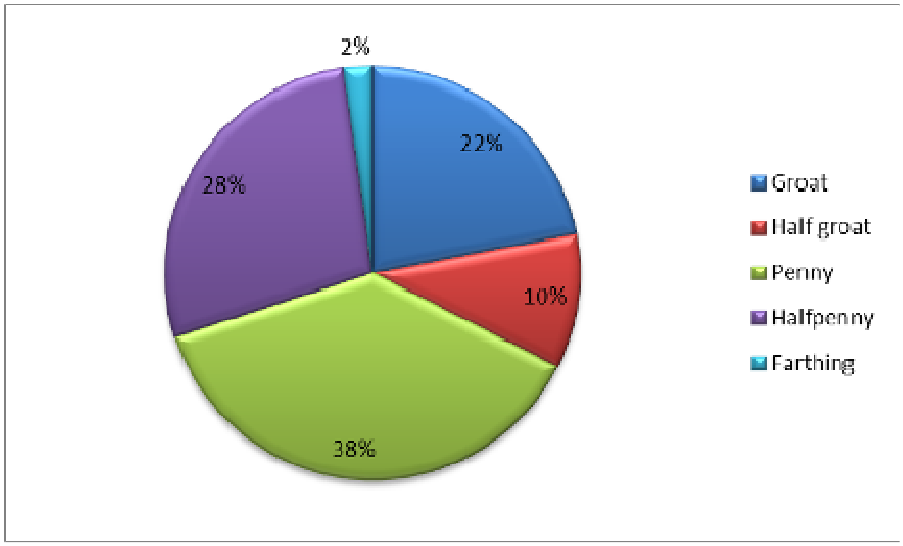


Figure 5.29 Silver denominations in PIX.

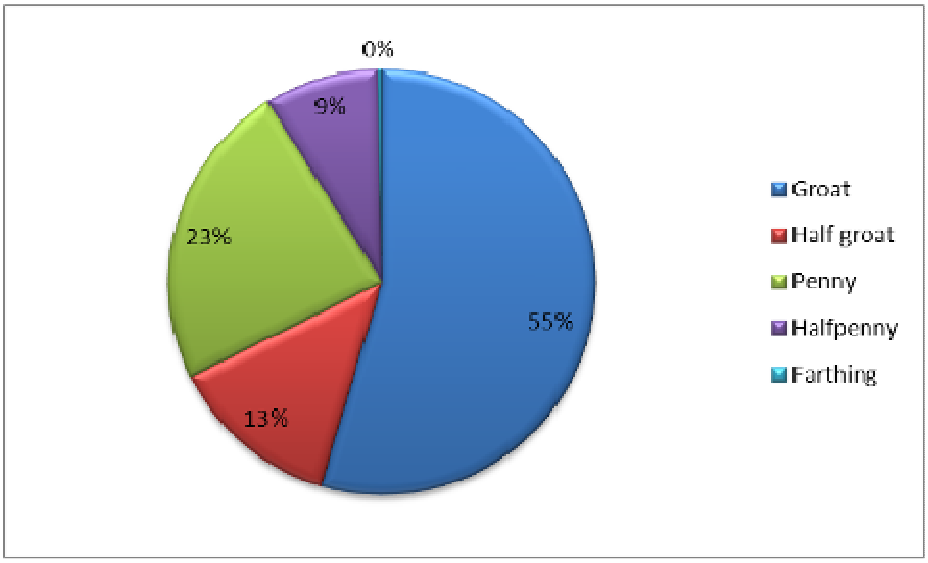


Figure 5.30 Silver denominations in PIX by value in pence.

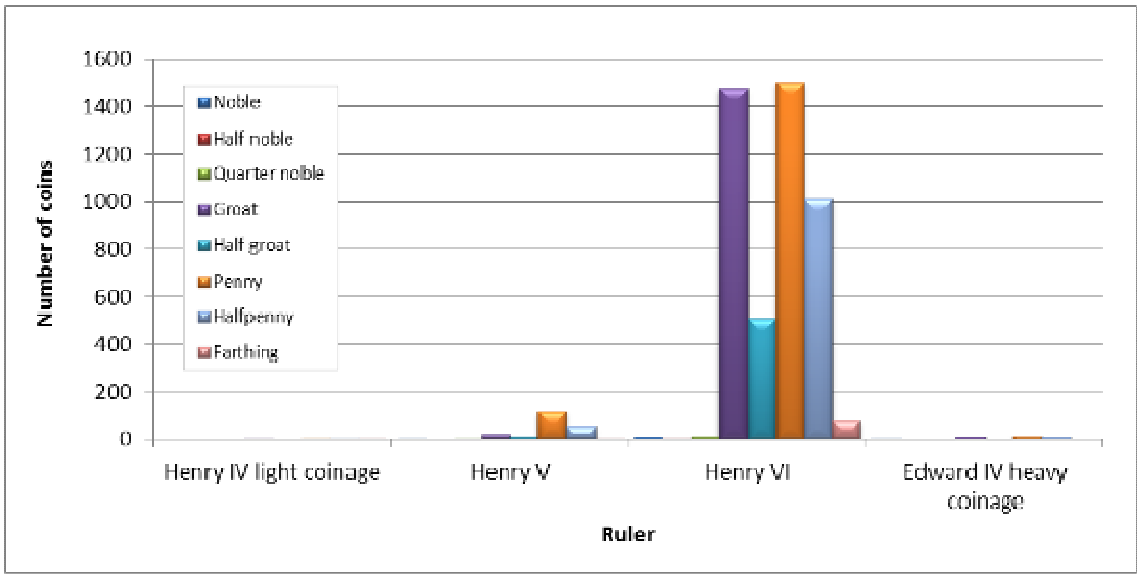


Figure 5.31 Denominational profile of PIX coins by issuer.

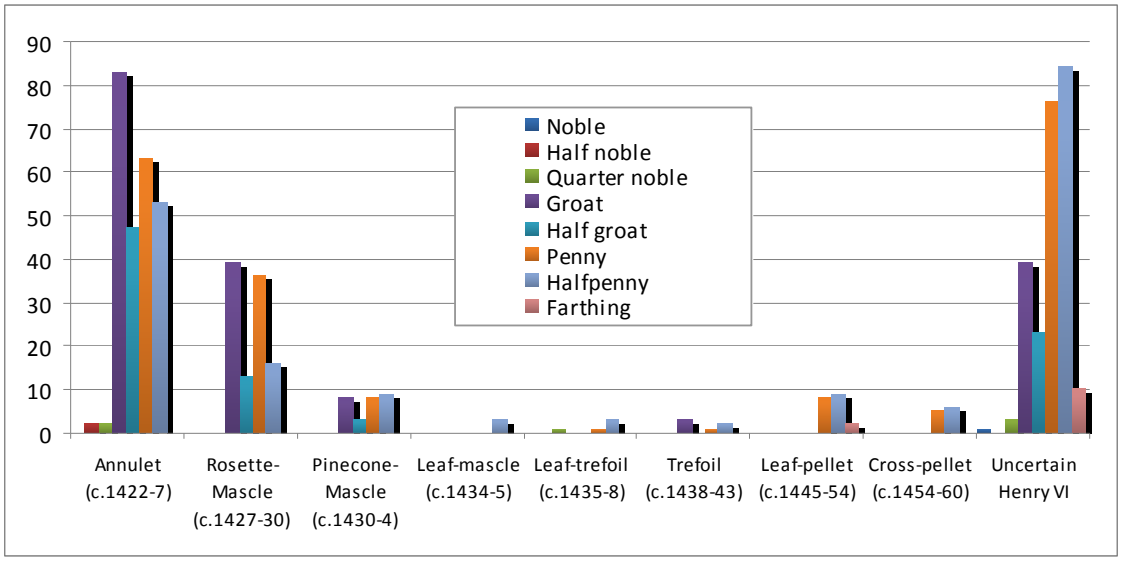


Figure 5.32 Denominational and typological profile of Henry VI's coins.

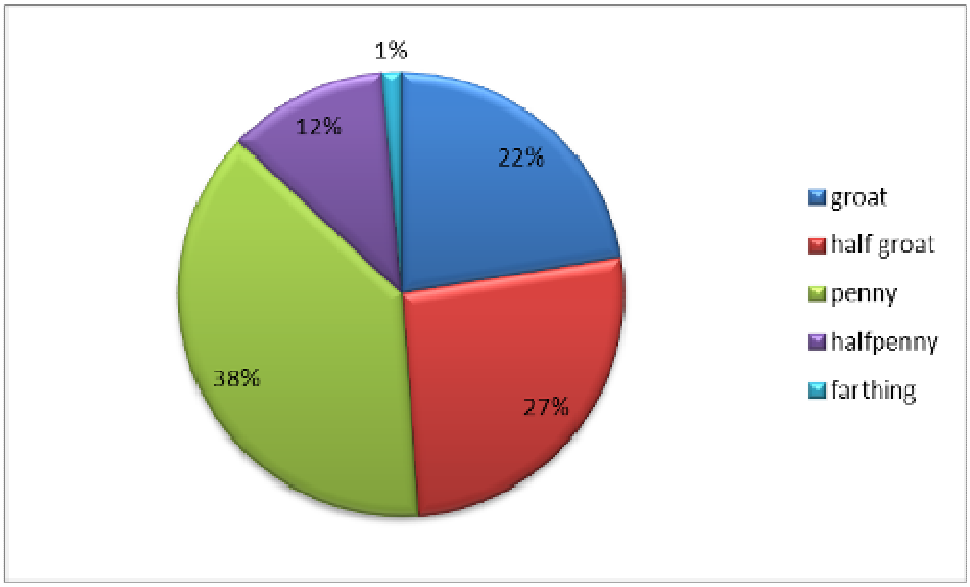


Figure 5.33 Silver denominations in PX.

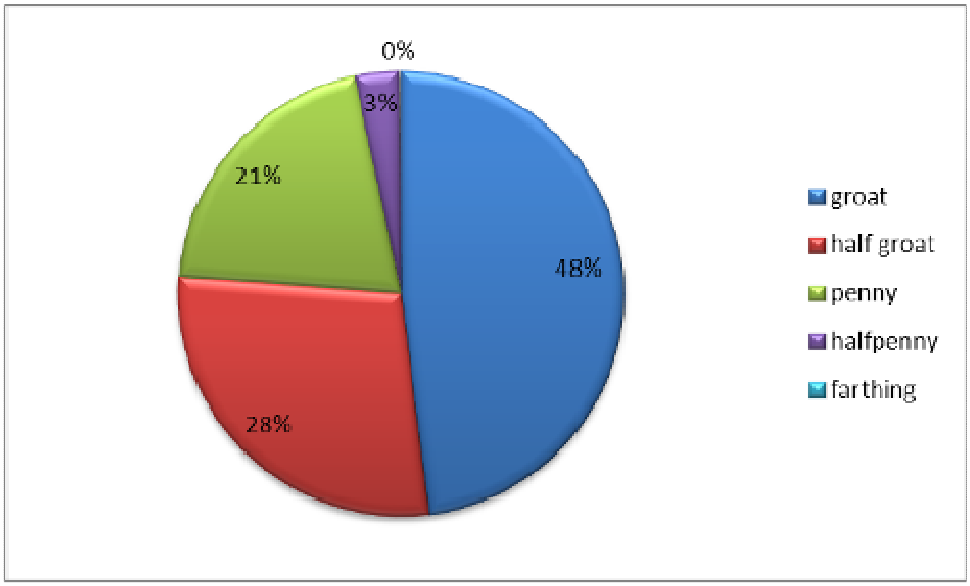


Figure 5.34 Silver denominations in PIX by value in pence.

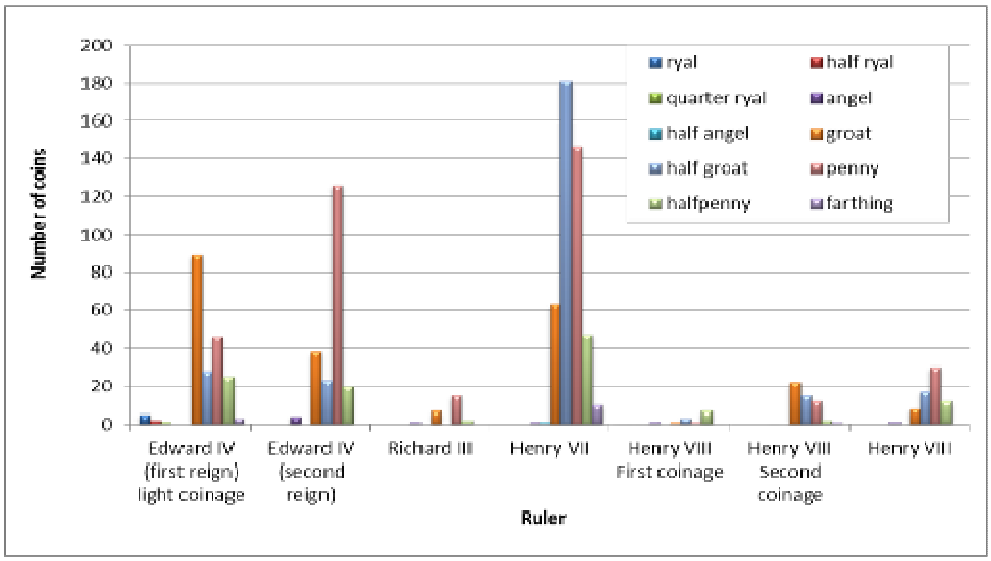


Figure 5.35 Denominational profile of PX coins by issuer.

Mint	Period VII	Period VIII	Period IX	Period X
Berwick-upon-Tweed	●	-	-	-
Bristol	●	-	-	●
Bury St Edmunds	●	-	-	-
Calais	-	●	●	-
Canterbury	●	-	-	●
Chester	●	-	-	-
Coventry	-	-	-	●
Durham	●	●	●	●
Exeter	●	-		-
Kingston-upon-Hull	●	-	-	-
Lincoln	●	-	-	-
London	●	●	●	●
Newcastle	●	-	-	-
Norwich	-	-	-	●
Reading	●	-	-	-
York	●	●	●	●

Figure 5.36 Mints active in the later medieval period (Phase C).
Full circles indicate coins are represented among the PAS finds.

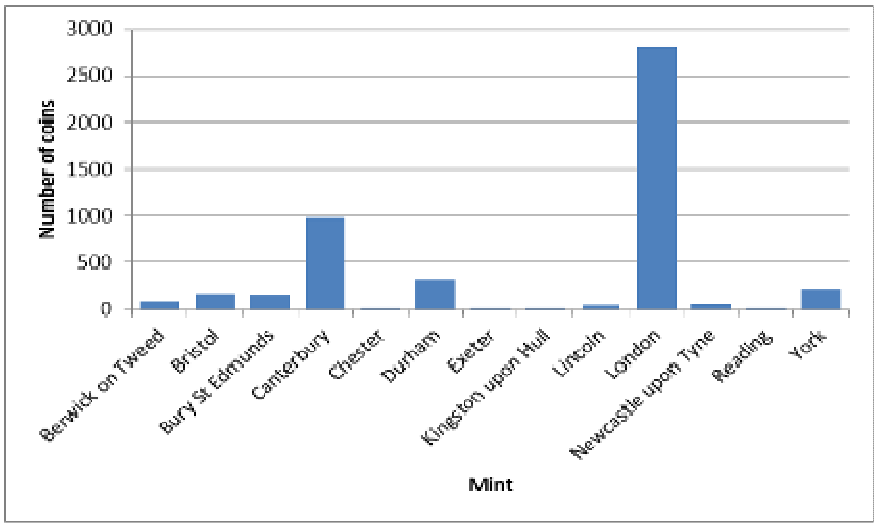


Figure 5.37 Period VII mints represented by coins.

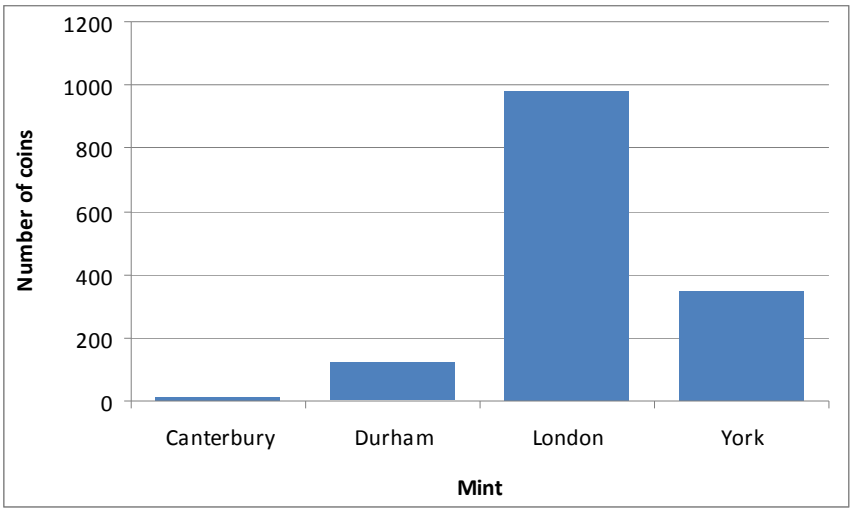


Figure 5.38 Period VIII mints represented by coins.

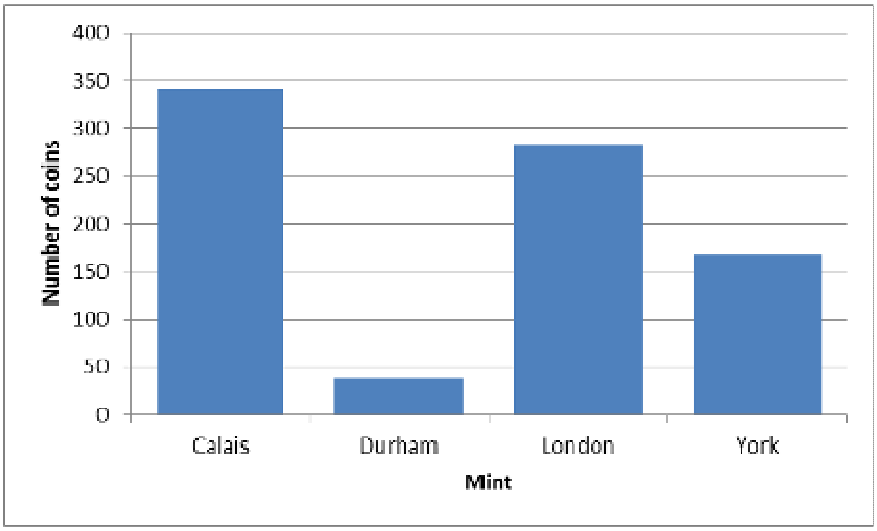


Figure 5.39 Period IX mints represented by coins.

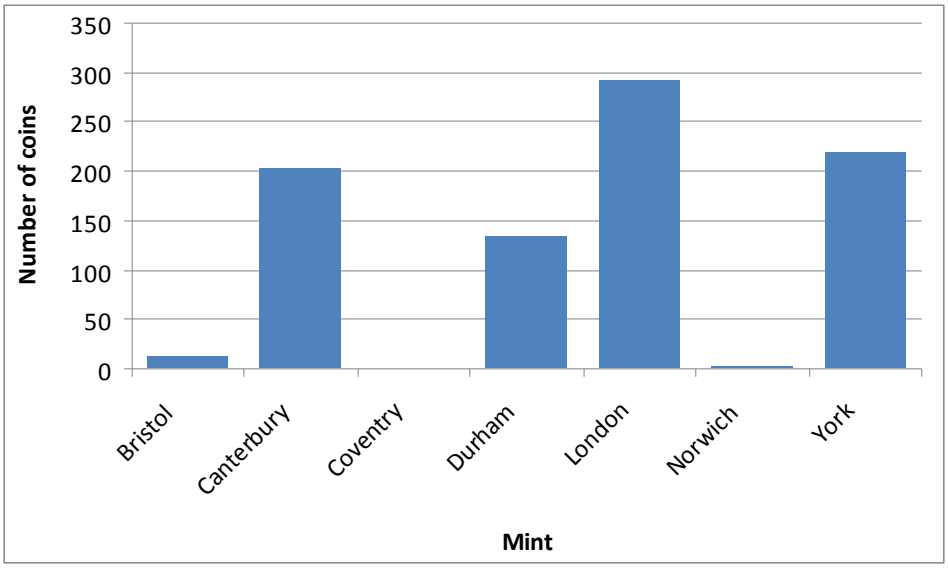


Figure 5.40 Period X mints represented by coins.

Scotland	637 (31.98%)	Scandinavia	32 (1.61%)
Low Countries	456 (22.89%)	Baltic	15 (0.75%)
Ireland	321 (16.11%)	Byzantium	10 (0.50%)
Italy	262 (13.15%)	Muslim Spain and N. Africa	8 (0.40%)
France	120 (6.02%)	Eastern Mediterranean	4 (0.20%)
Portugal	52 (2.61%)	Central/Eastern Europe	4 (0.20%)
Germany	38 (1.91%)	Miscellaneous	1 (0.05%)
Spain (Christian)	32 (1.61%)	*TOTAL*	1992

Figure 6.1 Foreign coins found in England. Thirty-two Anglo-Gallic coins struck under the English kings in France are included in the total for France.

No.	*Issuer*	*Coin*	*Type*	*Mint*	*Moneyer*	*Find-spot*
1	David I	cut halfpenny	group I	Carlisle	Ricard	Merrow Downs, Guildford, Surrey.
2		penny	BMC I	Carlisle	Hudard	Blyth, Nottinghamshire.
3			BMC I	Edinburgh	Uncertain	Knaresborough, N. Yorks.
4			BMC I	uncertain	Erebald	Blackpool, Lancs.
5			BMC I	Carlisle	Hudard	Lincolnshire.
6			BMC I		Hudard	Barmby Moor, East Riding
7		cut halfpenny	group IVb		Erebald	Aiskew, N. Yorks.
8		penny	group Iva	Roxburgh	Fobold	Newark, Nottinghamshire.
9			uncertain	Carlisle	Erebald	'South Cumbria'
10			uncertain	uncertain	Willem	Kirkoswald, Cumbria
11		cut halfpenny	uncertain	uncertain	uncertain	Winchester, Hants.
12						Attlebridge, Norfolk
13		cut farthing				Broadstairs and St Peters, Kent
14	Prince Henry	penny	uncertain	Corbridge	Erebald	Bishop Middleham, Co. Durham.
15			uncertain	uncertain	uncertain	North Yorks.
16			BMC I	Bamburgh	uncertain	Studley Roger, N. Yorks
17		cut halfpenny	type 3			London Bridge.
18	William I the Lion	penny	Early issue 1165-74	Roxburgh	Hugo	Wallingford, Oxfordshire.
19			crescent & pellet 1174-95			Llanfaes, Anglesey.

Figure 6.2 Scottish coins found as single finds in England and Wales (*c.* 1136-1195).

No.	*Issuer*	*Type/Mint*	*Findspot*
1	Kings of France. Henry I (1031-60)	Paris	Vintry, London
2	Kings of France. Philip I (1060-1108)	Montreuil	Vintry, London
3	Kings of France. Louis VI (1108-37)	Montreuil, cut half	Vintry, London
4	Normandy, Anonymous (1050-1100)	A	Manchester, (Castle Hill)
5			Vintry, London
6		B/C (1050-75)	Winchester, Hants. (Cathedral Green)
7			Faccombe Netherton, Hampshire
8		C (1075-1100)	Alfriston, E. Sussex
9			Billingsgate, London
10			South Downs, W. Sussex
11		-	Carisbrooke Castle, Isle of Wight
12		-	Vintry, London
13		-	Vintry, London
14		-	Vintry, London
15	Dreux. Hugues Bardoul (1035-55)	Pd'A 89var	Tuddenham St Martin, Suffolk
16	Meaux. Bishop Gautier I (1045-82)	-	Vintry, London
17	Beauvais. Immobilised (11th-e. 12th c.)	-	Brandon, Suffolk
18	Anjou. Geoffrey II (1040-60)	-	Vintry, London
19	Anjou. Fulk IV or later (1060-1129)	Pd'A 1492ff	near Northampton
20	Penthievre. Stephen I (1093-1138) or later	Guingamp, Pd'A 1430-49	St Ives, Cambs.
21	Brittany. Stephen I (1093-1136)	-	Vintry, London
22	Toulouse. Alphonse Jourdain (1112-1148)	-	Cawston, Norfolk
23	Maguelonne. Anon Bishops in the name of Raymond (1129-38)	-	Lincoln
24	Valence. Anon Bishops	-	Wickham Skeith, Suffolk
25	Crepy. Philip d'Alsace (1156-83)	-	Vintry, London

Figure 6.3 French royal and feudal deniers found in England (*c.* 1050-1180).

No.	*Issuer*	*Type/Mint*	*Findspot*
1	Anno, Archbishop of Cologne (1056-75)	type 4, Cut half	Vintry, London
2		type 5-6, Cut half	
3		Cut half	
4	Philip of Heinsburg, Archbishop of Cologne (1167-91)	imitation	Ipsley Church, Redditch, Worcs.
5		c.1167-8 Hav 503	Near Canterbury, Kent
6			Vintry, London
7	Holy Roman Empire. Immobilised type	Imitation Cologne, Soest? c1040-50	Near Blandford Forum, Dorset
8	Henry IV (1056-1106)	Dortmund	Vintry, London
9		Worms	
10			
11		Duisberg imitation 1080s-90s	Seal House, London
12		-	Shepperton, London
13	Lower Saxony. Dietrich III, count of Katlenburg (1085-1106) with Hartwig, Archbishop of Magdeburg (1079-97)	Gittelde Dan. 689	St Nicholas-at-Wade, Kent
14	Swabia. Hall (11th century)	-	South Croydon, Surrey
15	Utrecht, diocese. Bishop Bernaldus (1027-54)	-	Old Sarum, Wilts
15	Utrecht, diocese. Bishop William I (1054-76)	-	Vintry, London
17	Utrecht, diocese. Bishop Conrad (1076-99)	Deventer	Thetford, Norfolk

Figure 6.4 German pfennigs found in England (*c*. 1050-1180).

No.	*Kingdom and Issuer*	*Details*	*Findspot*
Denmark			
1	Magnus the Good (1042-47)	Lund, Othinkarr	Salisbury Plain, Wilts.[20]
2		Lund, Bain	Lincoln (West Parade)
3	Sven Estridssen (1047-75)		Thames Exchange, London
4			Thames bank, London
5			Southwark, London
6		pendant	Mildenhall area, Suffolk[21]
7	Olaf Kyrre (1077-93)	Imitative, temp	near Lincoln
8		Malmer IIb	Raunds, Northants.
9			Thetford Norfolk
10			Billingsgate, London
11		Profile/Long Cross Trondheim?	Lincoln (Usher Gallery Garden)
12			Salisbury, Wilts.
13			Wimbotsham, Norfolk
14			Billingsgate, London
15			near Lincoln
Norway			
16	Harald Hardrada (1047-66)	triquetra issue	near Doncaster, Yorks.
17			Thetford, Norfolk

Figure 6.5 Scandinavian pennies found in England (Period I).

No.	*Authority*	*Issuer*	*Coin*	*Type/Mint*	*Findspot*
1	Fatimid	Anon, temp. Al-Mustansir (1036-94)	Tari (qtr-dinar)	Sicily (c.1050-72)	St Leonards-on-Sea, Sussex
2	Barcelona	Raymond Berengar (1035-75)	Mancus	Bilingual (1065-76)	Denham, Bucks.
3	Almoravid	Yusuf b. Tashfin (1087-1106)	Dinar		near York
4	Almoravid	Ali b. Yusuf (1106-42)	Dinar	Denia (1106/7)	St Aldates, Oxford
5	Almoravid	Ali b. Yusuf (1106-42)	Dinar	Almeria	St Pauls, London
6	Almoravid	Ali b. Yusuf (1106-42)	Dinar	Almeria	St Pauls, London
7	Almohad	Abu Ya'qub Yusuf I (1163-80)	Half-dinar	1168-84	Wattisham, Suffolk
8	Murcia	Muhammad b. Sa'd of Murcia (1148-72)	Dinar	1169/70	Standon, Herts.

Figure 6.6 Islamic gold coins found in England.

[20] This coin is listed by Archibald 1991.6 Cook 1999a 44 as a single find but by Allen 2011, along with a William I penny as a hoard.

[21] This penny was found converted into a pendant and is more fully explored in Chapter 5.1.



Figure 6.7 Almohad half-dinar from Wattisham, Suffolk (SF-9EB484).

No.	*Issuer*	*Coin*	*Type/Mint*	*Findspot*
1	Constantine X (1059-67)	Copper 2/3 miliaresion		Thames Exchange, London
2	Romanus IV (1068-71)	Copper follis	Class G anonymous	Vintry, London
3	Anonymous	Copper follis	Class B (*c*. 1059-81)	Kelling, Norfolk
4	Anonymous	Copper follis	Class F (1065-70	Bull Wharf, London
5	Michael VII Ducas (1071-8)	Histamenon trachy	IId (pierced)	Bedale, Yorks.
6	Alexius I (1092-1118)	Copper Tetarteron	post-reform provincial copy	Bull Wharf, London
7	Manuel I Comnenus (1143-80)	Copper half-tetarteron	type 7	Vintry, London
8	Uncertain	AE Tetarteron	barbarous copy	Bull Wharf, London
9	John III (1221-54)	AE tetarteron	Nicea	Mistley, Essex
10	Andronikos II and Michael IX (1294-1320)	Hyperpyron	2b (n) Constantinople	Abbess Beauchamp and Berners Roding, Essex

Figure 6.8 Byzantine coins found in England (Periods I-VII).



Figure 6.9 Gold hyperpyron of Andronikos II and Michael IX.
Abbess, Beauchamp and Berners Roding, Essex (ESS-9516D4)

No.	*Source*	*Issuer*	*Coin*	*Type/Mint*	*Findspot*
1	Lucca	Emperor Henry III, IV or V (1039-1125)	Denaro	CNI 11.69 – 71.1-17.	South Ormsby cum Ketsby, Lincs.
2	Salerno	Robert Guiscard (1059-85)	Copper follaro	pierced	St Augustine's Abbey, Canterbury
3	Sicily	Roger II (1105-54)	Copper follaro	Messina	Thetford, Norfolk
4	Belgium	Unknown (1000-1050)	Denier	-	Great Bromley, Essex
5	Hungary	Andrew I (1046-61)	Denar	-	Exeter, Devon

Figure 6.10 Miscellaneous coins found in England (Periods I-IV).

Source	***Period V***	***Period VI***
Scotland	211	121
Ireland	34	59
Germany	4	1
Low Countries	6	
France	16 (+6 feudal)	
Others	5	8

Figure 6.11 Foreign coin finds in Periods V and VI.

	Period V hoards	***Period VI hoards***
English coins	66 (98.52%)	23 (100%)
Scottish coins	18 (26.87%)	10 (43.47%)
Irish coins	10 (14.93%)	11 (34.38%)
German coins	6 (8.96%)	7 (30.43%)
French coins	2 (2.99%)	-

Figure 6.12 English and Welsh Period V and VI hoards containing foreign coins.
Figure in parenthesis is the percentage of hoards which include coins from source country.



Figure 6.13 Scottish Short Cross and Stars and Long Cross and Stars pennies.

No.	*Hoard*	*Dep. date*	*Scots/total coins*	*%*
E17.	Natland (Cumbria)	c1205-16?	1/77	1.29
E20.	Arnside (Cumbria)	1205-c1220?	3/5	60[22]
E23.	Barnoldswick (Lancs.)	c1210	2/21	9.52
E31.	Elton (Notts.)	c1210?	1+/200+	0.5+
E34.	Stockland (Devon)	c1210-20?	1+/35	2.86+
E35.	Teston (Kent)	c1210-20?	3/40	7.5
E37.	Fillongley (Warks.)	c1215	3/115	2.6
E41.	Claxby (Lincs.)	c1217	2/28	7.14
E42.	Tockholes (Lancs.)	c1218	2/60	3.34
E43.	Clifton (Lancs.)	mid-1220s	3/72	4.17
E44.	York Minster	mid-1220s	2/76	2.63
E45.	Eccles (Lancs.)	1230	96/6230	1.54
E45.	Hickleton (Doncaster)	c1230	1/15	6.67
E50.	Seasalter (Kent)	mid-1230s	2/31	6.45
E51.	Wellow (Soms.)	late 1230s	1/16	6.25
E53.	Colchester (Essex)	1237	168/10,572	1.59
E59.	Wrexham (Wales)	1242-7	1/71	1.41
E60.	Leconfield (E. Yorks.)	c1240	9/475	1.89

Figure 6.14 Scottish coins in Period V hoards.
The 'E' number refers to its entry in Appendix B.

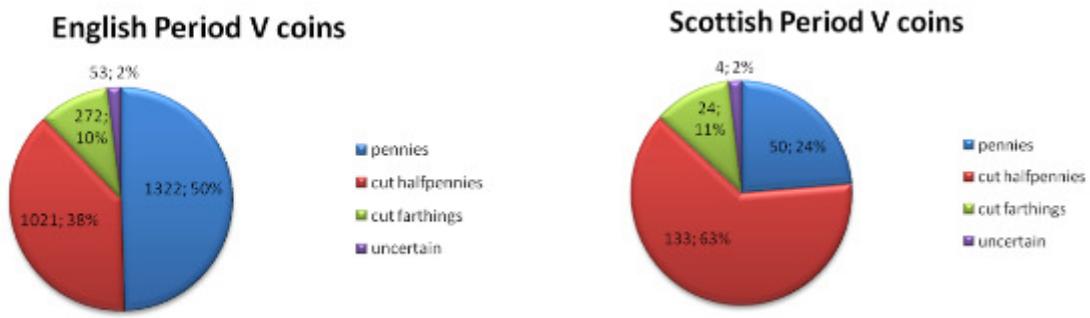


Figure 6.15 Period V English and Scottish single finds by denominations.

No.	*Hoard*	*Dep. date*	*Scottish/total coins*	*%*
F3.	Colchester (Essex)	1256 (part 1)	292/c.14,076	2.07
F4.	Welwyn Garden City (Herts.)	*c.* 1260	2/46	4.35
F7.	Baschurch area (Salop.)[23]	1260s	1/193	0.52
F10.	Hornchurch (Essex)	1260s	21/448	4.69
F11.	Palmer's Green (Kent)	1260s	4/217	14.81
F13.	Tower Hill (London)	1260s	2/306	0.65
F14.	Winchester (Cathedral Car Park)	1260s	2/20	10
F18.	Coventry (Upper York Street)	*c.* 1270	2/228	0.88
F19.	Steppingly (Beds.)	*c.* 1270	16/531	3.01
F20.	Greywell (Hants)	1270s	4/110	3.64
F21.	Morley St Botolph (Norfolk)	Late 1270s	1/21	4.76

Figure 6.16 Scottish coins in Period VI hoards.

[22] The small 5-coin hoard from Arnside gives a 60% return but this total is derived from a statistically invalid sample size.
[23] In terms of its composition this hoard is odd. 58% of the coins come from the Shrewsbury mint which was only active from 1249-50, and the chronology suggests 'a carefully husbanded savings hoard occasionally augmented as and when this could be afforded' (*TAR* 2007: 201).

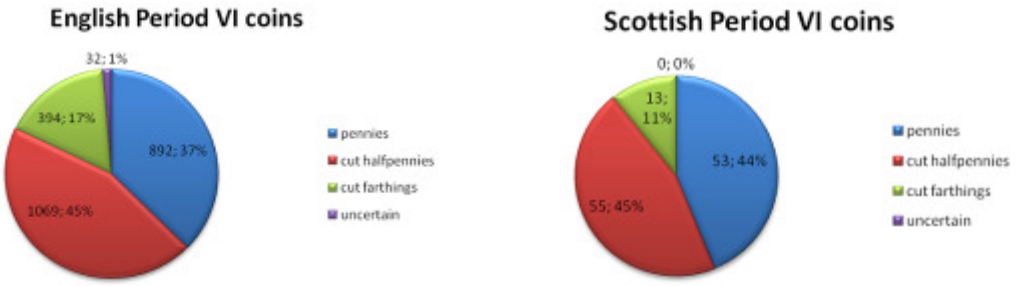


Figure 6.17 Period VI English and Scottish single finds by denominations.

No.	*Hoard*	*Dep. Date*	*Irish/total coins*	*%*
E34.	Stockland (Devon)	c.1210-20	1/35	2.86
E37.	Fillongley (Warks.)	c.1215	1/66	1.51
E43.	Clifton (Lancs.)	mid-1220s	1/72	1.39
E45.	Eccles (Salford)	1230	104/6,230	1.67
E46.	Hickleton (Doncaster)	c.1230	1/15	6.67
E47.	Shelly (Solihull)	c1230	4/15	26.67
E53.	Colchester (Essex)	1237	160/10,927+	1.46
E55.	Spixworth (Norfolk)	c.1240	1/20	5.00
E59.	Wrexham (Wales)	1242-7	1/71	1.41
E60.	Leconfield (E. Yorks.)	c.1245	14/475	2.95

6.18 Irish coins in Period V hoards (1180-1247).

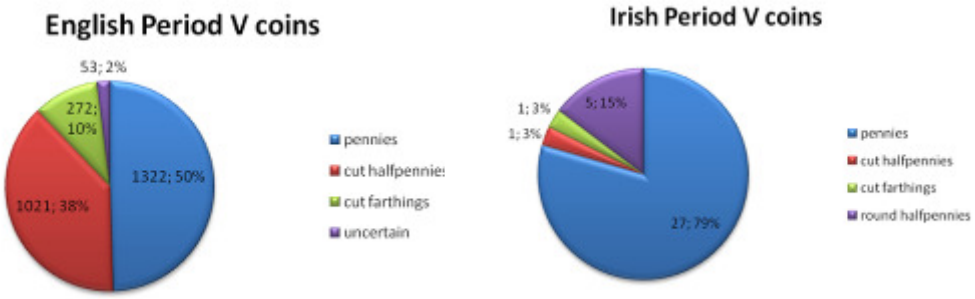


Figure 6.19 Period V English and Irish single finds by denomination.

No.	*Hoard*	*Dep. Date*	*Irish/total coins*	*%*
F3.	Colchester (Essex)	1256 (part 1)	292/c.14,076	2.07
F5.	Uncertain	c1260	1/172	0.58
F9.	Corley (Warks.)	1260s	7/170	4.12
F10.	Hornchurch (Essex)	1260s	10/448	2.23
F11.	Palmer's Green (Kent)	1260s	5/217	2.30
F13.	Tower Hill (London)	1260s	3/306+33?	0.98
F17.	Oakham (Rutland)	1260s-1279	x/27	
F18.	Coventry (Upper York Street)	c.1270	1/228	0.44
F19.	Steppingly (Beds.)	c.1270	13/531	2.45
F20.	Greywell (Hants)	1270s	4/110	3.64

Figure 6.20 Long Cross hoards with an Irish element

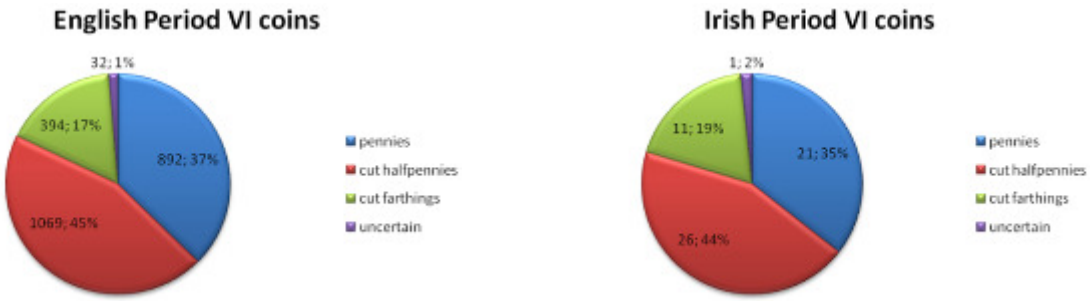


Figure 6.21 Period VI English and Irish coins by denomination

No.	*Hoard*	*Dep. Date*	*Continental/total coins*	*%*
E37	Fillongley (Warks.)	*c.* 1215	2/115 (incl. fragments)	1.74
E38	Loxbeare (Devon)	*c.* 1215	?/17	
E43	Clifton (Lancs.)	Mid-1220s	1/72	1.39
E45	Eccles (Salford)	1230	4/6,230	0.06
E47	Shelly (Solihull)	*c.* 1230	?/15	
E53	Colchester (Essex)	1237	23/10,927+	0.21
E56	'Nicoll'	*c.* 1240?	Uncertain	
E59	Wrexham (Wales)	1242-7	2/120?	1.67
E58	Leconfield (E. Riding)	*c.* 1245	4/475	0.84

Figure 6.22 Short Cross hoards with a Continental element

No.	*Hoard*	*Dep. Date*	*Continental/total coins*	*%*
F3	Colchester (Essex)	1256 (part 1)	33/c.14,076	0.23
F6	Uncertain	*c.* 1260	1/172	1.39
F10	Hornchurch (Essex)	1260s	1/448	0.22
F12	Thwaite (Suffolk)	1260s	1/22	4.55
F14	Winchester (Hants.)	1260s	1/20	5.00
F18	Coventry (Upper York St)	1260s-79	1/228	0.44
F19	Steppingley (Beds.)	*c.* 1270	2/531	0.38

Figure 6.23 Long Cross hoards with a Continental element

No.	*Issuer*	*Type/Mint*	*Findspot*
1	Philip II (1180-1223)		Billingsgate, London
2			Crimplesham, Norfolk
3			Vintry, London
4		Parisis, Arras [Dup 168]	Cowbridge, Vale of Glamorgan
5	Louis VIII (1223-6)		Billingsgate, London
6	Louis VIII/IX (1223-70)[24]		Portsmouth, Hampshire
7			Monks Kirby, Warwickshire
8		[Lafaurie 196]	Winchester, Hampshire
9			New Romney, Kent
10	Louis IX (1226-70)		York
11		[Lafaurie 201a]	Kilverstone, Norfolk
12			Bermondsey, London
13			nr Brandon, Suffolk
14			Southwark, London
15		pre-1266	Stonar, Kent
16			Sutton, Suffolk
17	Uncertain issuer	Fragments	Southampton
18			Southampton
19			Southampton

Figure 6.24 French deniers tournois found in England and Wales (1180-1279).

No.	*Source*	*Issuer*	*Coin*	*Findspot*
Period V				
1	Antioch	Bohemund III (1163-1201)	Denier	Bungay, Suffolk
2	Portugal	Sancho II (1223-48)	Dinheiro	Winterborne Whitchurch, Dorset
3	Castile	Ferdinand III (1230-52)	Dinero	Dunwich, Suffolk
4	Castile	Ferdinand III (1230-52)	Dinero	Bullock Down, E. Sussex
5	Tripoli	Bohemond V (1233-51)	Denier	'England'
Period VI				
6	Portugal	Alfonso III (1248-79)	Dinheiro	Exeter, Devon
7	Portugal	Alfonso III (1248-79)	Dinheiro	Canterbury, Kent
8	Portugal	Alfonso III (1248-79)	Dinheiro	Bullock Down, E. Sussex
9	Castile & Leon	Alfonso X (1252-84)	Dinero	Bassingbourne, Cambs.
10	Castile & Leon	Alfonso X (1252-84)	Dinero	King's Lynn, Norfolk
11	Castile & Leon	Alfonso X (1252-84)	Dinero	Vintry, London
12	Castile & Leon	Alfonso X (1252-84)	Uncertain	Royston, Herts.
13	Sicily	Frederick II (1295-1337)	Denaro	Bury St Edmunds, Suffolk

Figure 6.25 Miscellaneous Iberian and Mediterranean coins (Periods V-VI).

Source of coin	*No. of hoards*
England	98 (97.03%)
Scotland	52 (51.49%)
Ireland	40 (39.60%)
Sterling imitations	42 (41.58%)
France	2 (1.98%)

Figure 6.26 English and Welsh Period VII hoards containing foreign coins.

[24] The division of coins between these two kings is an area of numismatic study that has yet to be suitably classified.

No.	*Hoard*	*Dep. date*	*Scottish (%)*	*Continental (%)*	*Irish (%)*
G2	Northampton	1280s	2/199 (1.01%)	-	-
G3	Coventry (Hales St.)	1280-*c*. 1300	6/100-200?	-	-
G6	Barnard Castle Moor, Durham	*c*. 1280-1351	uncertain	-	-
G7	Benacre (Suffolk)	1280-1351?	-	-	uncertain
G8	Rugeley (Staffs.)	1280-1351?	2/2 (100%)	-	-
G10	Skipton Castle (N. Yorks.)	*c*. 1283-1300	1/5 (20%)	-	1/5 (20%)
G11	Hartlepool	*c*. 1283-1351?	uncertain	-	-
G12	Bowness (Cumbria)	*c*. 1287-1300?	2/5 listed (21 or 22)	-	-
G14	Broughton (Hants.)	*c*. 1290	33/332 (9.94%)	5/332 (1.51)	11/332 (3.31%)
G15	Coventry (& Warks. Hospital)	*c*. 1290 (c.500 coins, 144 listed)	9/144 (6.25%)	6/144 (4.17%)	4/144 (2.78%)
G16	King's Lynn (Norfolk)	*c*. 1290	5/41 (12.20%)	4/41 (9.76%)	1/41 (2.44%)
G17	Skegby (Notts.)	*c*. 1290	34/450 (7.56%)	-	10/450 (2.22%)
G18	Cae Castell (Cardiff)	Early 1290s	6/64 (9.38%)	2/64 (3.13%)	2/64 (3.13%)
G19	East Langdon (Kent)	Early/mid-1290s	2/34 (5.88%)	-	1/34 (2.94%)
G20	Ickfield (Kent)	Early/mid-1290s	44/522 (8.4%)	-	23/522 (4.41%)
G21	Dover (Kent)	Mid/late-1290s	344/686 (50.15%)	2/686 (0.29%)[25]	226/686 (32.94%)
G22	Beverley Priory (E. Riding)	1292-1351	4/5 (80%)	-	-
G25	Watford (Northants.)	*c*. 1300?	3/28 (10.71%)	-	-
G26	Wallington (Surrey)	1300-c.1310	/37	-	-
G29	Derwentwater (Cumbria)	1300-51	-	-	1/34 (2.94%)
G30	Hesleyside (Northumb.)	1300-51	11/340 (3.24%)	3/340 (0.88%)	5/340 (1.47%)
G31	Newbury (Berks.)	1300-51	28/3530 (0.79%)	51/3530 (1.44%)	36/3530 (1.02%)
G33	Silverdale (Lancs.)	1300-51	-	-	3/16 (18.75%)
G34	Thrapston (Northants.)	1300-51	30/360 (8.33%)	3/360 (0.83%)	13/360 (3.61%)
G35	Lincolnshire	*c*. 1305-10	57/1142 (4.99%)	41/1142 (3.59%)	4/1142 (0.35%)
G36	Newminster Abbey (Northumb.)	*c*. 1305-10	38/486 (7.82%)	2/486 (0.41%)	18/486 (3.70%)
G37	Rothersthorpe (Northants.)	*c*. 1305-10	1/32 (3.13%)	-	1/32 (3.13%)
G38	Avebury (Wilts.)	*c*. 1305-10	-	1/3 (33.33)	-
G39	Great Yarmouth (Norfolk)	*c*. 1305-51	/700-1000	-	-
G40	East Clandon (Surrey)	*c*. 1306-7	1/42 (2.38%)	-	1/42 (2.38%)
G41	Deopham (Norfolk)	*c*. 1306-?1320	-	-	1/6 (16.67%)
G43	Oxford (Town Hall)	After 1309	-	2/2 (100%)	-
G46	Middridge (Durham)	*c*. 1311	280/3072 (9.11%)	26/3072 (0.85%)	115/3072 (3.74%)
G47	Whittonstall (Northumb.)	*c*. 1311	/1206	/1206	/1206
G49	Abbey Town (Cumbria)	*c*. 1312-14	5/81 (6.17%)	2/81 (2.47%)	-
G50	Gorefield (Cambs.)	*c*. 1312-14	84/1084 (7.75%)	27/1084 (2.49)	52/1084 (4.80%)
G51	Ilkley Moor (Bradford)	*c*. 1312-14	/43(+6?)	/43(+6?)	-
G53	Newport (Isle of Wight)	*c*. 1314-44	37/3000+ (1.23%)	35/3000+ (1.17%)	20/3000+ (0.67%)
G54	Wyke (Bradford)	*c*. 1314-44	110/c.2000 (5.5%)	16/c.2000 (0.8%)	4/c.2000 (0.2%)
G55	Thame (Oxon.)	1314-51	uncertain	3/500+ (0.6%)	1/500+ (0.2%)
G56	South Elmham (Suffolk)	Mid-1310s	1/19 (5.26%)	-	-
G63	Scotton (N. Yorks.)	*c*. 1319-44	6/319+ (1.88%)	2/319+ (0.63%)	3/319+ (0.94%)
G64	Llandonna (Anglesey)	1320-40	9/311 (2.89%)	2/311 (0.64%)	4/311 (1.29%)
G65	Downham (Essex)	*c*. 1320-51	-	1/9 (11.11%)	-
G67	Neath Abbey II (Glamorgan)	*c*. 1320	-	3/66 (4.55%)	1/66 (1.51%)
G68	Boyton (Wilts.)	*c*. 1321	94/4155 (2.26%)	58/4155 (1.4%)	54/4155 (1.3%)
G69	Tutbury (Staffs.)	*c*. 1321-2	uncertain	uncertain	uncertain
G70	Amble (Northumb.)	*c*. 1321-44	30/1027 (2.92%)	16/1027 (1.56%)	18/1027 (1.75%)
G71	Bootham (York)	*c*. 1321-44	40/908 (4.41%)	12/908 (1.32%)	16/908 (1.76%)
G72	Grittleton (Wilts.)	*c*. 1321-44	-	2/51 (4.08%)	-
G73	Knaresborough (N. Yorks.)	*c*. 1321-44 of *c*. 1600	1/1037 (0.1%)	13/1037 (1.25%)	-
G74	Neath Abbey I (Glamorgan)	*c*. 1321-44	1/100 (1.00%)	1/100 (1.00%)	1/100 (1.00%)
G75	West Rudham (Norfolk)	*c*. 1321-44	7/393 (1.78%)	3/393 (0.76%)	9/393 (2.29%)
G76	York (Coppergate)	*c*. 1321-51	-	1/5 (20%)	-
G77	Unknown	Late 1320s	/c271	/c271	-

[25] This figure refers only to the sterling imitations and not to the Gros and other continental coins included in this peculiar find.

G78	Coventry	1329-44	-	2/38 (5.26%)	-
G79	Nottingham	1333-51	2/c.100 (2%)	-	1/c.100 (1%)
G82	Chester (Pepper St.)	1344-51	1/100 (1%)	1/100 (1%)	2/100 (2%)
G83	Ottery St Mary (Devon)	1344-51	-	2/11 (18.18%)	-
G84	Oxford (St Clement's)	1344-51	1/225 (0.44%)	1/225 (0.44%)	3/225 (1.33%)
G85	Portbridge (Devon)	1344-51	-	-	1/37 (2.7%)
G86	Llysdinam (Powys)	*c.* 1345-50	3/105 (2.86%)	-	-
G87	West Wratting (Cambs.)	1344-51	-	1/13 (7.69%)	-
G88	Derby	1345-51	10/640 (1.56%)	27/640 (4.22%)	5/640 (0.78%)
G89	London (Tower I)	1349-50 (75/181 coins studied)	-	3/75 (4%)	-
G91	Hull Dock	1344-51?	-	uncertain	-

Figure 6.27 Period VII English and Welsh hoards including foreign coins.



Figure 6.28 Penny of Alexander III from Drayton Bassett, Staffs. (WMID-A15373).

	Pennies	***Halfpennies***	***Farthings***
Alexander III	144	15[26]	1
John Baliol	14	4	0
Robert Bruce	8	3	1
TOTAL	166	22	2

Figure 6.29 Scottish Period VII coins.

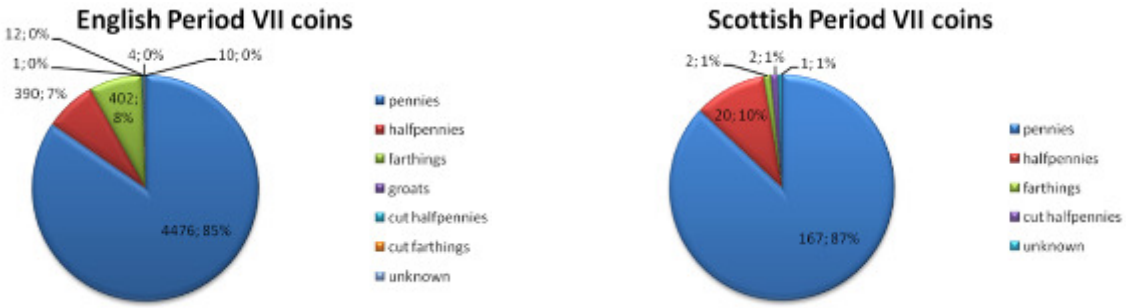


Figure 6.30 Denominational breakdown of Period VII English and Scottish coins.

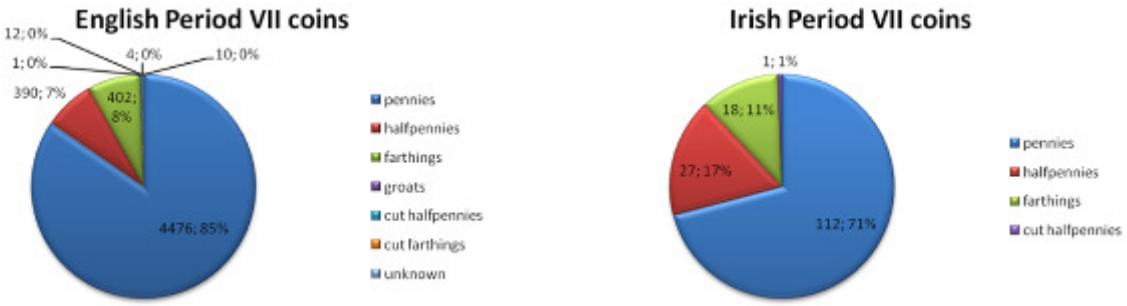


Figure 6.31 Period VII English and Irish coins by denomination

[26] Two of these are full pennies cut in half. Although not common the cutting of pennies is known and supports contemporary concerns about the provision of halfpennies and farthings at the mint (Kelleher 2008: 251; Griffiths *et al* 2007: 318; Allen 2007c: 192-4)



Figure 6.32 Pollard of Gui of Dampierre, Count of Flanders (left) from Hoxne, Suffolk (SF-7D8E67) and Crockard of Gui II de Collemède, Bishop of Cambrai (right) from Upottery, Devon (DEV-4CF892).

Source	***Ruler***	***Total***	***Mayhew no. and qty.***
Flanders and Namur	Gui of Dampierre (1279-1305)	18	M1: 2; M2: 1; [27] M1-8: 1; M12: 1; M13: 7; M16: 2; M19-22: 1; uncertain: 3.
Hainaut	John of Avesnes (1280-1304)	52	M24: 11; M24-32: 6; M25: 1; M28: 1; M28-30: 1; M29: 3; M30: 2; M32: 4; M33-6: 1; M34: 10; M36: 6; M37: 1; M39: 4; uncertain: 1.
Brabant	John I and II (1261-1312)	23	M40: 1; M41: 1; M43: 7; M44: 4; M45: 1: M48: 1; M56: 1; M56: 3; uncertain: 4.
Looz	Arnold V (1279-1323)	19	M59: 2; M62: 5; M62-3: 1; M63: 2; M69: 1; M70: 2; M75: 2; M78: 1; uncertain: 3.
Herstal	John of Louvain (1285-1309)	8	M80: 1; M80-2: 1; M82: 2; M84: 3; uncertain: 1.
Bishops of Cambrai	William of Hainaut (1285-96)	2	M89: 1; M91: 1.
	Gui of Collemede (1296-1306)	10	M98/99 mule: 1; M99: 7; uncertain: 2.
Bishops of Liege	Hugh of Chalon	2	M102: 1; M105: 1.
		134	

Figure 6.33 Continental sterling imitations. Phase 1: Crockards and Pollards (*c*. 1280-1300).



Figure 6.34 Sterling imitations of the later phase. Gaucher of Chatillon (left) from Hound, Hants. (HAMP-279810) and John the Blind of Luxemburg (right) from Sutton Bridge, Lincolnshire (NLM-307C61).

[27] Types 1-3 have as their obverse design the double-headed eagle rather than a bust.

Source	*Ruler*	*Total*	*Mayhew no. and qty.*
Enigmatic types	Crowned	1	M142: 1.
Kuinre	Henry II or III	1	M175: 1.
Gelderland	Renaud (1272-1326)	1	M181: 1.
Flanders	Robert of Béthune (1305-22)	18	M211: 12; M213: 1; M214: 2; M215: 1; M216: 1; uncertain: 1.
Serain	Valéran II of Ligny (1304-53 and (1364-6)	7	M220: 2; M233-4: 1; M225: 1; M226: 1; M228: 1; new type: 1[28].
Florennes	Gaucher of Châtillon (1313-22)	47	M237: 5; M237-7: 2; M239: 6; M243: 3; M244: 6; M247: 1; M248: 2; M249: 2; M250: 1; uncertain: 19.
King of the Romans	Henry VII (1308-12)	1	M254-5: 1.
Luxemburg	John the Blind (1309-46)	20	M257: 2; M259: 1; M263: 1; M265: 4; M270: 2; M274: 1; M276-80: 1; M284: 1; M285: 1; M286: 2; uncertain: 4.
Rethel	Louis of Nevers (1290-1322)	1	Uncertain: 1.
Lorraine	Ferry IV (1312-28)	4	M305/311: 1; M305: 1; M307: 1; M309: 1.
Ec Moneta Nostra		2	M311: 1; M314: 1.
Bishops of Toul	Thomas of Bourlémont (1330-53)	5	M317: 2; M318: 2; Uncertain: 1.
Holy Roman Empire	Louis IV of Bavaria (1314-47)	6	M332: 1; M333/332 mule: 1; M334: 1; M336: 1; M334-7: 2.
Schonecken	Hartrad (1316-51)	2	M352: 1; uncertain: 1.
Méraude	Maria of Namur (1342/4-1353)	2	M357: 1; uncertain: 1.
Namur & Méraude	William (1337-91)	19	M361: 11; M361-3: 1; M365: 3; M367: 1; M367-8: 1; uncertain: 2.
'English' legends		1	M380: 1
Signum Crucis		1	M404: 1
Unidentified		12	Uncertain: 12.
Forgery		1	1 SCBI 39: 1244 CHECK THIS
		151 (+1)	

Figure 6.35 Continental sterling imitations. Phase 2: Crowned bust types (*c*. 1310-1350?)



Figure 6.36 WALT type brabantini from Bromley, Gt. London (left, LON-784BD6) and Brabant denier from Burrough Green, Cambs (right, CAM-CDDCD1).

[28] This coin carries a combination of legends not seen on other issues of Serain and is probably a minor new type.

No.	*Issuer*	*Type/Mint*	*Findspot*
1	Philip III (1270-85)	Gros tournois	Yarmouth Beach, Norfolk
2		Denier tournois	Hillington, Norfolk
3			Hindringham, Norfolk
4		Billon uncertain	Arundel House, Strand, London
5	Philip III/IV (1270-1314)	Gros tournois	Thetford, Norfolk
6		Denier parisis [D221]	Vintry, London
7		Denier Tournois (1280-90) [D223]	Steeple Bumpstead, Essex
8		Double tournois [D229]	Attlebridge, Norfolk
9			Whitefriars, Canterbury
10			Winchester, Hants.
11		holed	Wenhaston, Suffolk
12		Double parisis [D227]	Whitefriars, Canterbury
13	Philip IV (1285-1314)	Gros tournois	Chester
14			Deal, Kent
15			Haverhill, Suffolk
16		Gros tournois[29]	North Walsham, Norfolk
17		Maille tierce a l'Orond [D219b]	Upton, Northamptonshire
18		Maille tierce	Lakenheath, Suffolk
19			West Dereham, Norfolk
20		Double parisis, 1st issue [D227a]	City of London
21		Double parisis	St George's St, Canterbury
22		Double tournois	Chelmsford Priory, Essex
23			Hastings Castle, East Sussex
24			Richborough, Kent
25			Richborough, Kent
26		[D225]	Tattersett, Norfolk
27			Great Bedwyn, Wiltshire
28			Hastings Castle, East Sussex
29			West Rudham, Norfolk
30			Ludgershall Castle, Wiltshire
31		Bourgeouis simple [D232]	Winchester, Hants.
32		Piedfort, denier parisis[30]	Drayton Bassett, Staffordshire
33	Charles IV (1322-28)	Gold Royal d'or [D240]	Near Shrewsbury, Salop.
34		Maille blanche [D243]	Blakeney, Norfolk
35		Double parisis [D244b]	Winchester, Hants.
36	Philip VI (1328-50)	Ecu 1337 [D249]	Bere Regis, Dorset
37		Ecu	Bexhill, Kent
38			Market St, York
39			near Salcombe, Devon
40		Gros [D263b]	Knottingley, West Yorkshire
41		Gros	Selby, N. Yorkshire
42		Double tournois [D271a]	Vintry, London
43		Denier tournois	Billingsgate, London

44	Provence	Robert of Anjou (1309-43)	Sol coronat, Pd'A 3989	Reading, Berks.
45	Burgundy	Eudes IV (1315-50)	Demi-gros	Sleaford, Lincs.
46	Blois	Gui de Chatillon (1307-42)	Obol	Stonar, Kent
47	Savoy	Jean III & Jeanne (1329-38)	Denier, Limoges, Pd'A 23	Stow, Lincs.

Figure 6.37 French coins found in England (*c*. 1279-1351).

[29] This coin has been converted into a dress hook and is more fully covered in Chapter 6.1, along with similar pieces.

[30] The exact function of piedforts is not fully understood. As objects they appear as overly thick coins struck with official coin dies.

No.	***Issuer***	***Type/Mint***	***Findspot***
1	Edward I	Denier au lion	Poole , Dorset (exc.)
2			Ryther, N. Yorks.
3		Denier au leopard, Aquitaine	Vintry, London
4	Edward III (1327-77)	Sterling (E56)	Little Waldingfield, Suffolk
5			near Chelmsford, Essex
6			Buckingham
7		Demi-sterling (E57), Aquitaine	Billingsgate, London
8			Louth, Lincs.
9			Spalding, Lincs.
10			'Dorset'
11		Demi-sterling (E57a)	Fen Drayton, Cambs.
12		Demi-sterling	South Ferriby, Humberside
13		Gros au leopard passant (E59)	Norwich, Norfolk
14		Dbl Tournois (E122), Calais	Custom House Steps, London
15			York Minster

Figure 6.38 Anglo-Gallic Period VII coin finds.

No.	*Source*	*Issuer*	*Coin*	*Type*	*Findspot*
1	Portugal	Dinis (1279-1325)	Dinheiro		London
2					New Romney, Kent
3					nr Leicester
4					Richborough, Kent
5	Norway	Eric II Magnusson (1280-99)	Half-sterling	Nidaros, Schive 22	East of Winchester, Hants.
6		Duke Haakon Magnusson (1285-90)	Quarter-pennig	Oslo, 1st coinage	'Eastern England'
7		Haakon V (1299-1319)	Penning	Bergen, Ahlstrom 41.1	Sherburn, N. Yorks.
8			Penning	Bergen, Ahlstrom 41.2	Little Wilbraham, Cambs.
9	Castile and Leon	Sancho IV (1284-95)	Dinero		Billingsgate
10					nr Chichester
11		Alfonso XI (1312-50)	Dinero		nr Bristol
12			Cornado	Leon [Cay 1181]	Canterbury (Whitefriars), Kent
13			One real	[CC 1255]	Canterbury (Whitefriars), Kent
14			Blanca		unknown
15	Majorca	James II (1324-48)	Dinero		Barrow-on-Humber
16	Aragon	James II (1291-1327)	Dinero	[Cay 1669]	York
17	Cologne	Archbishop Henry II of Virneburg (1304-32)	Pfennig	Bonn	Ilam, Staffs.
18	Tyrol	Henry of Tyrol (1310-35)	Grosso aquilino		Weybourne, Norfolk
19	Siena	c.1275-1350	Grosetto or denaro		Bottisham, Cambs.
20	Cyprus	Henry II (1285-1324)	Gros petit	series 2 (1310-24)	near Alford, Lincs.

Figure 6.39 Other foreign coins (Period VII).

Source of coin	*No. of hoards Period VIII*	*No. of hoards Period IX*
England	63 (92.92%)	47 (97.92%)
Scotland	15 (23.07%)	8 (16.67%)
Ireland	6 (9.23%)	5 (10.42%)
Low Countries	9[31] (13.85%)	9[32] (18.75%)
France	1[33] (1.54%)	1 (2.08%)
Anglo-Gallic	1 (1.54%)	1 (2.08%)
Spain	1[34] (1.54%)	
Venice		1 (2.08%)
Burgundy		2[35] (4.17%)

Figure 6.40 English and Welsh Period VIII and IX hoards containing foreign coins.

Venice	155	Anglo-Gallic	15
Scotland	60	Portugal	11
France	26	Spain	9
Low Countries	16	Germany	4
Baltic	15		

Figure 6.41 Period VIII-IX single finds of foreign coins by source.



Figure 6.42 Soldino from Brigg, North Lincs. (NLM-C23975)

Doge	*Present corpus (PAS)*	*Daubney*	*Spufford*
Pietro Gradenigo (1289-1311)	0+1 grosso (1)		
Francesco Dandolo (1329-39)	0+1 grosso (1)		
Antonio Venier (1382-1400)	12 (10)	9	1 + 1 post-1382 grosso
Michele Steno (1400-13)	98 (88)	75	1
Tommaso Mocenigo (1413-23)	5 (4)	4	1
Francesco Foscari (1423-57)	0+1 grosetto (1)		
Uncertain doge	37 (37)	31	
TOTAL	**152 (142) +3 larger coins**	119	3 (+1 grosso)

Figure 6.43 Venetian coins of the first wave by doge and source. All soldini unless otherwise indicated.

[31] Just one of these hoards – that of Westbury (Wiltshire – H63) – contains Flemish gold nobles, the rest are all earlier sterling imitations.
[32] The Horsted Keynes (West Sussex – J33) included Flemish gold noble types
[33] This hoard from Great Totham (Essex – H18) is composed entirely of three French billon coins.
[34] This hoard from Myddle and Broughton (Salop – H35) was comprised of nine Spanish gold doblas of Pedro the Cruel.
[35] One hoard (Headington, Oxon J8) consisted of three double groats of Flanders and Brabant.

Ruler		*4d*	*2d*	*1d*	*½ d*	*¼ d*	*Total*
David II (1329-71)	First coinage (1329-57)	-	-	7	1	0	8
	Second coinage (1357-67)	5	2	10	1-	-	17
	Third coinage (1367-71)	1	0	0	-	-	1
	uncertain	1	2	0	0	0	3
Robert II (1371-90)		0	1	15	8	-	24
Robert III (1390-1406)	Heavy and light coinages	3	0	3	4	-	10
James I (1406-37)		2	-	0[36]	0[27]	-	2
Uncertain ruler		0	1	1	0	0	2
TOTAL		12	6	36	14	0	57

Figure 6.44 Scottish Period VIII-IX coins by ruler and denomination.

Source	*Issuer*	*Coin*	*Qty.*
Teutonic Order	Winrich v. Kniprode (1351-82)	Vierling	9
	Michael Kuchmeister v. Sternburg (1414-22)	Schilling	1
	Paul I v. Russdorf (1422-41)	Schilling	1
	uncertain		1
Livonian Order	*c*. 1350-90	Artiga	1
Estonia	Dietrich III Damerau, bishop of Dorpat (1379-1400)	Schilling	1
Gotland	Visby (fourteenth-fifteenth century)	Witten	1
Poland	Wladislaus Jagiello (1386-1434)	Ternarus	1

Figure 6.45 Period VIII-IX Baltic coins from England.



Figure 6.46 Vierling from Isleham, Cambs. (SF-706784).

	Hoard	*Dep. date*	*Coins*
H11	Rickerby (Stanwix Parish), (Cumbria)	*c.* 1352	4 sterlings
H14	Cambridge (Chesterton Lane)	Mid-1350s	4 sterlings
H27	Abbotsbury (Dorset)	1361-lt.fourteenth	1 noble
H30	Beaumont (Cumbria)	Early 1360s	2 sterlings
H61	Skipton Bridge (N. Yorks.)	1400-1412	1 denier
J42	Reigate (Brokes Rd), (Surrey)	*c.* 1455	1 demi-gros; 10 gold saluts
J48	Fishpool (Notts.)	*c*. 1464	Uncertain.

Figure 6.47 Hoards including Anglo-Gallic coins.

[36] Both the pennies and halfpennies of James I were of billon.

No.	*Authority*	*Coin*	*Findspot*
1	Edward III (1327-77)	Denier au leopard [E95]	Hayle, Cornwall
2	Edward the Black Prince (1362-72)	Demi-gros [E171], Bordeaux	Milton Keynes, Bucks.
3		Demi-gros	City of London
4		Denier, ?Limoges	St Mary Merton Priory, Surrey
5	Henry of Lancaster, Lord of Bergerac (1347-61)	Uncertain	Brixham, Devon
6	Henry IV (1399-1413)	Hardi d'Argent	Canterbury, Kent
7			Rudston, E. Riding
8		Uncertain	Oxford (Hamel exc.)
9	Henry V (1413-22)	Florette, Rouen	Upper Sheringham, Norfolk
10	Henry IV-V (1399-1422)	Denier, Aquitaine	Hull
11	Henry IV-VI (1399-1422)	Hardi d'Argent [E233][37]	South Ferriby, Humberside
12			Unknown
13	Henry VI (1422-71)	Petit blanc [E292], Paris	Winchester, Hants.
14		Denier Tournois, Rouen	Unknown

Figure 6.48 Anglo-Gallic single finds

No.	*Authority*	*Coin*	*Findspot*
1	Fernando I (1367-83)	Grave, Lisbon	Burleston, Dorset
2	John I (1385-1433)	Real	Bedworth, Warks.
3			London
4			Rickmansworth, Herts.
5			Otterhampton, Soms.
6			'South Devon'
7			Writtle, Essex (exc.)
8		Copper real preto, Porto	Postwick, Norfolk
9		Half real	Keynsham Abbey, Soms.
10			Unknown
11		Cietil	Vintry, London

Figure 6.49 Period VIII-IX Portuguese single finds

No.	*Source*	*Authority*	*Type/mint*	*Findspot*
1	Rhodes	Order of St John	Anon *c*. 1319-60	Shotley, Suffolk
2	Trier	Boemund II of Wassberg (1354-62)	Halb-schilling	Alnmouth, Northmb.
3	Cologne	Friedrich of Saarwerden (1370-1414)	Halb-weisspfennig	Southwark, London
4	Wismar (City)	after 1392	Dreiling [Jesse 421]	Langley Burrell, Wilts.
5	Southern Germany/Austria	late fourteenth century	Pfennig	St Aldate's, Oxford
6	Castile and Leon	John II (1406-54)	Dinero	Marazion, Cornwall
7				Unknown

Figure 6.50 Period VIII-IX minor contributors

Source	*No. of coins*	*Source*	*No. of coins*
England	1015	*France*	11
Burgundian Netherlands	105	*Scotland*	7
Venice	146	*Spain*	5
Ireland	55	*Italy*	3
Portugal	31	*Germany, Hungary, Russia*	1 each

Figure 6.51 Period X coins by source.

[37] The majority of the hardi d'argent coins attributed to Henry IV-VI are likely to be of Henry VI.

Doge	*Present corpus (PAS)*	*Daubney*	*Spufford*
Nicolo Tron (1466-73)	10 (9)	7	-
Nicolo Marcello (1473-4)	2 (2)	2	-
No soldini under Pietro Mocenigo (1474-76) and Andrea Vendramin (1476-78)			
Giovanni Mocenigo (1478-85)	1 (0)	0	-
No soldini under Marco Barbarigo (1485-6)			
Agostin Barbarigo (1486-1501)	11 (11)	11	-
Leonardo Loredan (1501-21)	113 (109)	92	-
Antonio Grimani (1521-3)	0	0	-
Andrea Gritti (1523-	1 (+1 gold)	1	1 marcello
Uncertain doge	6 (6)	4	-
c.1525-50	1 bagattino	-	-
TOTAL	144 soldini 2 other types	117	1 other

Figure 6.52 Venetian coins by doge and source *c*. 1501-26. Soldini unless otherwise indicated.



Figure 6.53 Double patard found at Brandon and Bretford, Warks. (DENO-F05F68).

No.	*Hoard*	*Dep. Date*	*Double patards/ total coins*	*%*	*Double patards: groats*	*%*
K25	Evesham (Worcs.)	*c*. 1475-1544	1/3	33.3	1:2	33.3
K32	Unknown site	*c*. 1485	39/306	12.75	2:303	
K35	Ryther (N. Yorks.)	*c*. 1487	2/817	0.25	2:254	0.59
K38	Hounslow (London)	lt 1480-1490s	86/376	22.87	86:376	22.87
K41	Lichfield district (Staffs.)	*c*. 1500	2/18	11.11	2:17[38]	11.76
K42	Mendelsham Green (Suffolk)	lt 1480s-c. 1510	2/28	7.14	2:15	12.5
K43	Basingstoke area (Hants.)	lt 1480s-1544	2/3	66.67	2:1	66.67
K52	Norham Castle (Northumb.)	*c*. 1502-4 or 1513?	3/23		3:21	
K54	Bury St Edmunds, Suffolk	*c*. 1504-5	unknown			
K55	Hartford (Cambs.)	*c*. 1504-5	80/1,108	7.22	80:472	14.5
K57	Witchingham (Norfolk)	*c*. 1505-10	?/382 (1/18)	-	1:9	10.0
K58	Downham (Lancashire)	*c*. 1505-1544	1/13	7.69	1:3	25.0
K64	South Warwickshire	1509-26	2/20	10.00	2:10	1.67
K82	Welnetham (Suffolk)	1526-44	unknown			
K85	Maidstone (Kent)	1534-44	12/503	2.39	12:78	13.33
K88	Unknown site	*c*. 1537-44	11/322	3.42		

Figure 6.54 Double patards in Period X hoards.

No.	*Hoard*	*Dep. Date*	*Irish/total coins*	*%*
K21	Nuneaton (Warks.)	1470s-lt fifteenth century	1/20 (of c400)	5
K22	Guisborough (Redcar & Cleveland)	1473-*c*. 1480	10/226	4.42
K27	Bootham (York)	Early 1480s	8/163 (of 432)	4.91
K31	'Norfolk'	*c.* 1485	1/136	0.74
K35	Ryther (N. Yorks.)	*c.* 1487	6/817	6.90
K36	Damerham (Hants.)	*c*. 1480s/1490s	1/16	6.25
K37	Clay Coton (Northants.)	Late 1480s	3/433	0.69
K50	Grasmere (Cumbria)	*c*. 1500	2/63	3.17
K55	Hartford (Cambs.)	*c*. 1504-5	7/1017	0.69
K85	Maidstone (Kent)	1534-44	3/503	0.60

Figure 6.55 Period X English and Welsh hoards containing Irish coins.

Issue	*Pennies*	*Halfgroats*	*Groats*	*Unc.*
Edward IV				
Anonymous 'Crown' (*c*. 1460-63)	1			
Heavy 'Cross and Pellets' (1470?-73?)	1			
Light 'Cross and Pellets' (1473-78?)	18	1	3	1
'Bust with Suns and Roses/Rose-on-Cross' (*c.* 1476-83)	10			
Uncertain	14	1	4	
Henry VII				
Early 'Three Crowns' (1485-87)	1			
TOTAL	45	2	7	1

Figure 6.56 Period X Irish coins by type and denomination.

[38] One coin in this hoard is a fragmented Burgundian double groot (CH 2000, no. 52).



Figure 6.57 Chinfrão found at Gawcott with Lenborough, Bucks. (NARC2606) and ceitil.

No.	*Hoard*	*Dep. Date*	*Portuguese content*
K40	Deeping St James (Lincs.)	Late 1480s-*c*. 1502	1
K42	Mendelsham Green (Suffolk)	Late 1480s-*c*. 1510?	2
K46	Bleadon (Soms.)	Late fifteenth/early sixteenth century	1
K48	Oxford (Carfax)	Early sixteenth century	45
K55	Hartford (Cambs.)	*c.* 1504-5	2
K58	Downham (Lancs.)	*c*. 1505-44	1
K70	Leighton Buzzard (Beds.)	1509-44	1
K81	Sherborne (Dorset)	1526-44	9 gold
K85	Maidstone (Kent)	1534-44	1
K87	Cefn Garw (Monmouthshire)	1536-44	1 gold
K88	Unknown	*c.* 1537-44	1

Figure 6.58 Period X English and Welsh hoards containing Portuguese coins.

Issuer	*Denomination*	*No.*
Alfonso V (1438-81)	Chinfrao	15
	Ceitil	9
	unknown	2
John II (1481-95)	Vintem	2
Manuel I (1495-1521)	Gold cruzado	1
	Half-vintem	1
John III	Ceitil	1
TOTAL		31

Figure 6.59 Period X Portuguese single finds

	Pendant	*'Badge'*	*Annular brooch*	*Dress hook*	*Ring*	*Other*	**TOTAL**
c. 900-1000	1	3	0	0	0	2	6
1000-1066	2	27[39]	0	0	0	0	29
PI (1066-1100)	1	9	0	0	0	0	10
PII (1100-1135)	0	1	0	0	1	0	2
PIII (1135-1158)	0	1	0	0	0	0	1
PIV (1158-1180)	0	1	0	0	0	0	1
PV (1180-1247)	0	0	1	0	0	0	1
PVI (1247-1279)	1	0	2	1	0	0	4
PVII (1279-1351)	2	0	0	34	0	2	38
PVIII (1351-1412)	0	0	0	0	0	0	0
PIX (1412-1464)	1	0	1	0	0	0	2
PX (1464-1544)	0	0	0	0	0	1	1
TOTAL	8	42	4	35	2[40]	5	95

Figure 7.1 Official coins converted into jewellery by period and type.



Figure 7.2a The 'Ware area' pendant made from a Byzantine miliaresion of Romanus III (1028-1304). (PAS: BH-E11856).
Obverse: The haloed Virgin Mary standing on a footstool wearing a *pallium* and *maphorium* and holds the infant Christ, in the field M and Ö. Set within a triple border with eight globules. Inscription reads ✝ΠΑΡΘΕΝΕ COI ΠΟΛVΑΙΝΕ
Reverse: Facing figure of Romanus III standing on a footstool, wearing a crown, saccos and loros. He holds a long patriarchal cross in reverse and a globus surmounted by a cross. The inscription continues OC ΗΛΠΙΚΕ ΠΑΝΤΑ ΚΑΤΟΡΘΟΙ on the reverse (*Whoso has set his hope on Thee, Virgin all-glorious, prospereth in all his works).*



Figure 7.2b Reverse of the type found at Sporle (Norfolk) with the inscription ✝NICHF' ЄN XW AVTOCRAT' ЄVSЄƀ' ƀASILЄVS (*Nicephorus by the grace of God Imperator and pious King of the Romans).* Norwich Castle Museum 1998.305.

[39] This figure assumes the Winchester composite brooch was manufactured from coins found in the eleventh century.
[40] The example from Congham, Norfolk consists of a coin folded into a triangular bezel. The coin is a worn, as yet unidentified, foreign coin depicting the Virgin and Child.



Figure 7.3 The Mildenhall pendant made from a coin of Sven Estridsen of Denmark (British Museum).



Figure 7.4 Unprovenanced Henry III gilt-pendant with glass or paste beads.



Figure 7.5a. Coin set with stone excavated at Barking Abbey (Archibald unpublished). The coin was archived at the Passmore Edwards Museum but its present location is unknown; and b. The Lee penny from the collection of the Lockhart family.



Figure 7.6 Two Edward I coin pendants from New Romney, Kent (left; TAR 2000.151) and Ditchling, Sussex (right; SUSS-E7BD44).



Figure 7.7 Edward IV gold ryal pendant (British Museum P&E AF 2772).

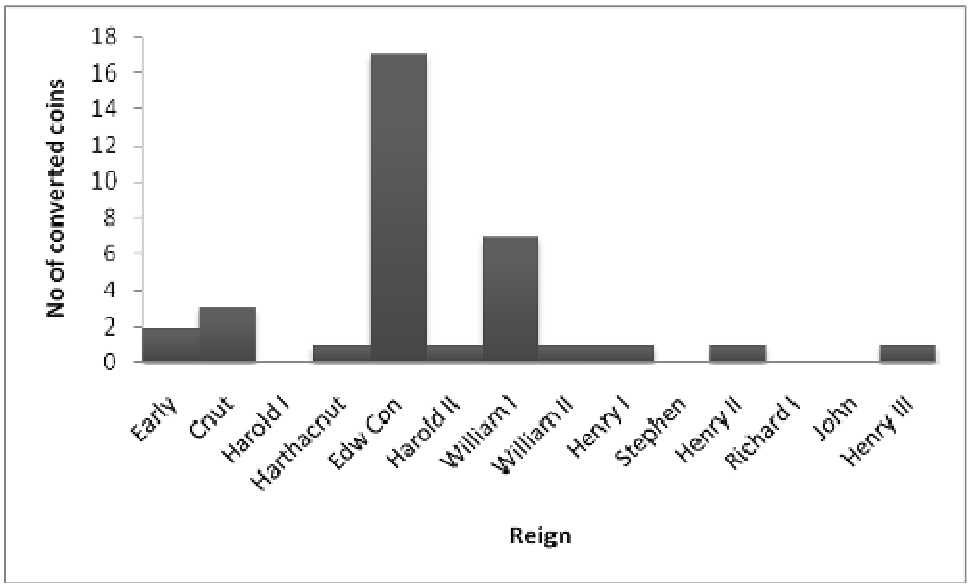


Figure 7.8 Coin badges by reign

No.	Monarch	Type	Mint	Moneyer	Findspot	Gilt?	Attachment	Notes
1	Burgred / Eadmund	Lunettes /			Winchester, Hants.	Obv	Six rivets clamp the coins together, two each secure fittings	Excavated from 13th c. context
2	Eadwig	Floral var.	West Midlands	Sedeman?	Andover Down, Hants.	Rev	Two piercings, one rivet remains	Very early coin
3	Aethelred II (imitation)	Long Cross	Sigtuna		Old Romney, Kent	No		Adapted in England
4	Cnut	Short Cross	London	Aelfwig	Vintry, London	?	Pin and catchplate intact; brass(?) pin, repaired.	
5	Cnut	Short Cross	Thetford	Thorulf	Stockbridge Down, Hants.	Rev	Four piercings.	
6	Cnut	Unrecorded	Unrecorded	Unrecorded	Whitfield, Kent	?	Unrecorded	
7	Harthacnut	Jewel cross	Warwick	Seward	Nonbury, Worcs.	?	Iron pin; silver rivets	Obv. facing
8	Edw. Conf.	Expanding cross	Bedford	Aelmon	Nr Sudbury, Essex	both	One rivet near edge	Pendant(?)
9	Edw. Conf.	Expanding cross	Gloucester	Leofnoth	Alfriston, Sussex	Rev	Catchplate riveted; two holes (no pin)	
10	Edw. Conf.	Expanding cross	London	Eadwig	Trowbridge, Wilts.	Rev	Silver pin and plate, riveted.	
11	Edw. Conf.	Expanding cross	London	Eadwig?	Unrecorded	Rev	Riveted plates for pin and catchplate only	
12	Edw. Conf.	Expanding cross	London	Godwine	Walpole St Peter, Norfolk	Rev	Two central rivets hold catchplate bar	
13	Edw. Conf.	Expanding cross	Winchester	Brand	Nr Winchester, Hants.	Rev	Pin and catchplate riveted separately	
14	Edw. Conf.	Pointed helmet	Chester	Alcsige?	Unrecorded	Rev	Riveted hinge section intact	
15	Edw. Conf.	Pointed helmet	Chester	Sweartcol	Winchester, Hants.	Rev	Silver mounts	
16	Edw. Conf.	Pointed helmet	Winchester?	Aelfwine	Winchester, Hants.	Rev	AR pin and catchplate riveted separately	
17	Edw. Conf.	Pointed helmet	London	Brunstan	Aldbourne, Wiltshire	Ob?	Pierced	
18	Edw. Conf.	Pointed helmet	Winchester	Godwine	Hose, Leics.	Rev	Two silver rivets only	
19	Edw. Conf.	Pointed helmet	Oxford	Hergod	Unrecorded	Rev	AR riveted pin and catchplate, separate	
20	Edw. Conf.	Sovereign	Cambridge	Eadward	Hadstock, Essex	Rev	Not recorded	
21	Edw. Conf.	Sovereign	Exeter	Lifinc	Avebury, Wilts.	Rev	Not recorded	
22	Edw. Conf.	Sovereign	London	Aelfsige	Great Bedwyn, Wilts.	Rev	AR riveted pin and catchplate, separate	
23	Edw. Conf.	Sovereign	London	Aelfweard	Bosham, West Sussex	Rev	Three central piercings.	
24	Edw. Conf.	Pyramids	London	Sigebode?	Edington, Wilts.	Rev	AR riveted pin and catchplate, separate	
25	Edw. Conf.	Hammer Cross	Thetford	Godlef?	Little Saxham, Suffolk	Rev	Rivets at centre and cross terminals, soldered catchplate and pin	
26	Harold II	PAX	Thetford	Godric	N. Walsham, Norfolk	Rev	Two rivet holes	Finder removed attachment
27	William I	Profile/ Cross Fleury	London	Wulfgar	Billingsgate, London	No	Hinged copper pin and catchplate, soldered	Excavated
28	William I	Bonnet	Oxford	Æthelwine	Chichester, Sussex	Rev	AR hinged pin and catchplate	Excavated
29	William I	Canopy	Thetford	Osbeorn or Otbeorn	West Walton, Norfolk	?	Riveted bar	
30	William I	Two Sceptres	Thetford	Cinric	Nr Aldeburgh, Suffolk	Rev	Soldered attachments removed	
31	William I	Two Sceptres	Winchester	Godwine	unrecorded	Rev	AR soldered pin and catchplate (lost)	
32	William I	Two Stars	Sandwich	Ælfgæt	Marlowe, Canterbury	Rev	AR soldered pin and catchplate (lost)	Excavated

33	William I	Profile right	London	Edwi	East Wych, Hertfordshire	?	Riveted copper alloy pin/catchplate	
34	William II	PAXS	unrecorded	unrecorded	Abbots Worthy, Hants.	?	Pin and catchplate	
35	Uncertain	illegible	illegible	illegible	West Rudham, Norfolk	?	Riveted bar with looped end	
36	Henry I	BMC 5	Gloucester	Alfwine	unrecorded	Rev	Cu pin and catchplate, riveted	
37	Henry II	Cross and crosslets	Newcastle	Willem	Vernhams Dean, Hants.	Rev	Soldered fittings lost	
38	Henry III	Long Cross class 5b	London	Henri	'Kent'	Rev	Traces of soldered fittings	?pendant

Figure 7.9 Summary table of eleventh-twelfth century coin-badges.

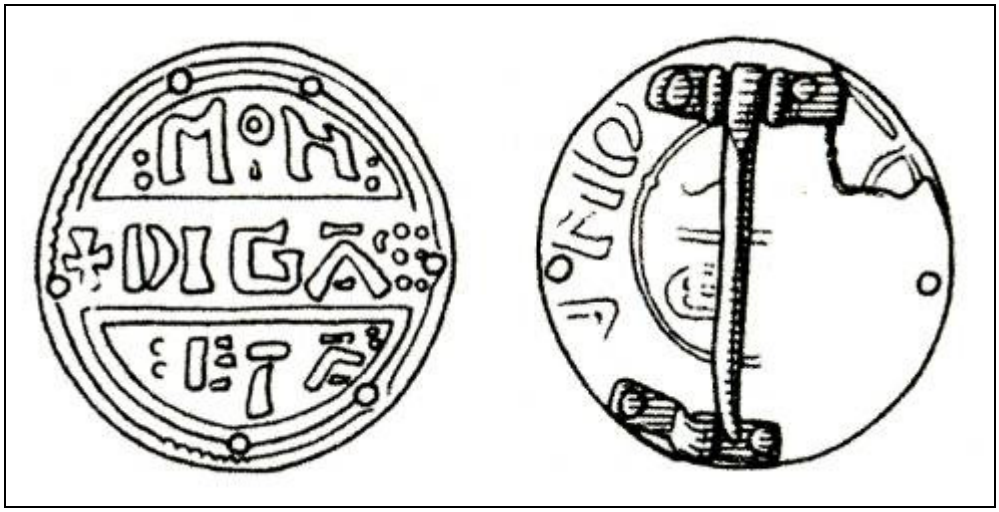


Figure 7.10 The Brook Street, Winchester badge.



Figure 7.11 William I coin brooch from Billingsgate, London.



Figure 7.12 Short Cross penny converted into an annular brooch.
Found at Covenham, Lincs. (Treasure 2007 T434; PAS: NLM-BF3250).



Figure 7.13 Silver gilt annular brooch adapting a petit denier minted in Lille (Ghyssens 277) and found at Claxby, Lincolnshire in 2010 (Treasure 2010 T466).



Figure 7.14 Bergamese grosso from Wymondham, Norfolk.

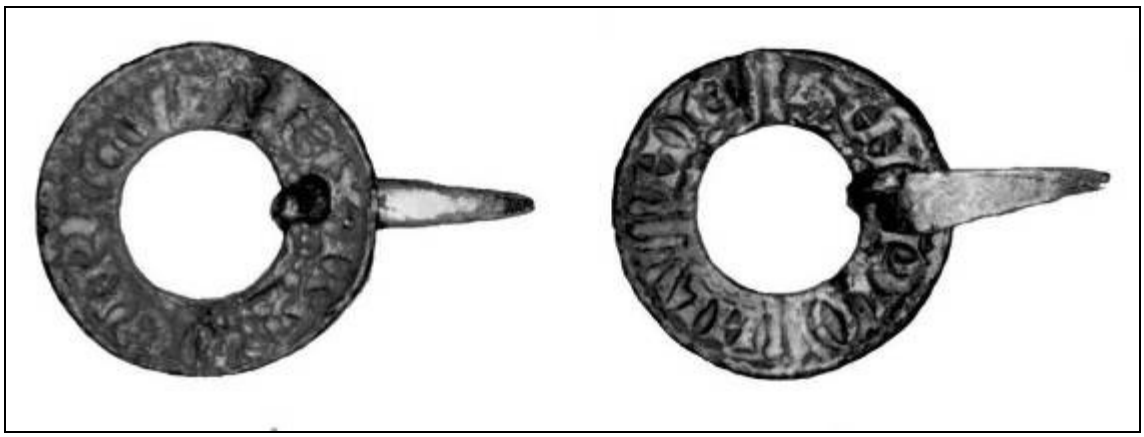


Figure 7.15 Long Cross annular brooch from Caistor, Norfolk.

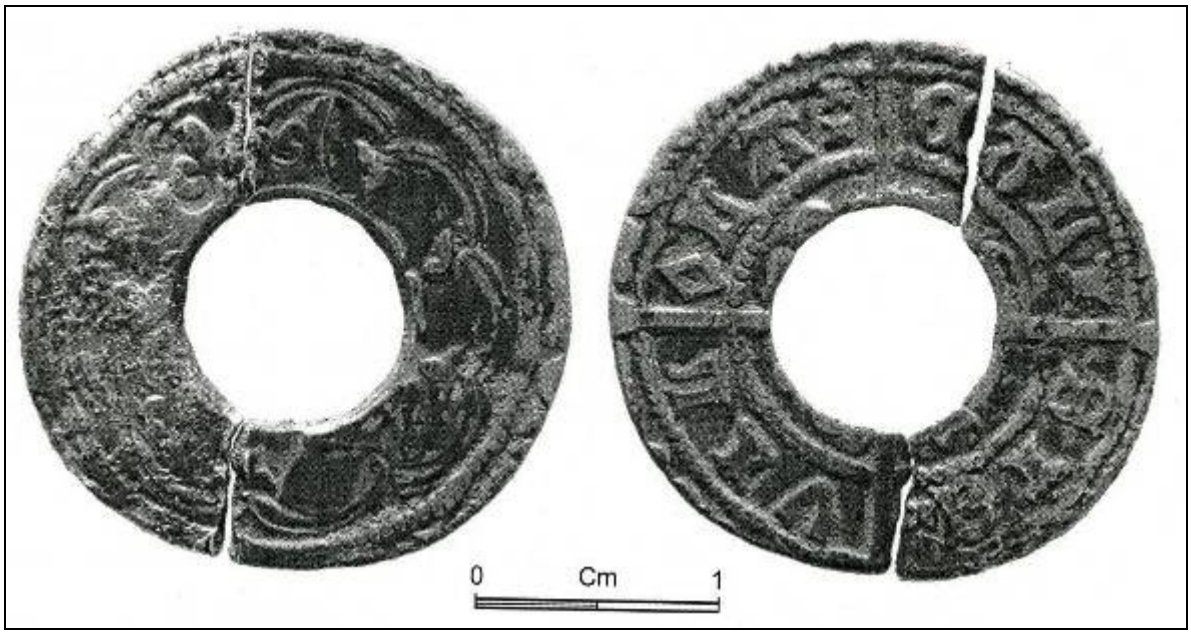


Figure 7.16 Henry VI groat with centre cut out found at Penllyn



Figure 7.17 Dress hook from Paull (East Riding).

Source	Ruler/Coin type	Number
England	Edward I. Groats (1279-1281)	16
	Edward I. Pennies (1b; 2b; 3; 9b) (1279-1300/1)	4
France	Louis IX. Gros Tournois (1266-70)	3
	Philip III. Gros Tournois (1270-85)	2
	Philip IV. Gros Tournois (1285-1314)	4
Hainaut	Marguerite of Constantinople. Demi-gros (1275-80)	2
Luxemburg	Henry VII. Gros Tournois (1288-1309)	1
Saint-Pol	Gui IV. Gros au portail (1292-1317)	1
TOTAL		33

Figure 7.18 Coins converted into dress hooks.



Figure 7.19 Henry I type XI penny from Peterborough.

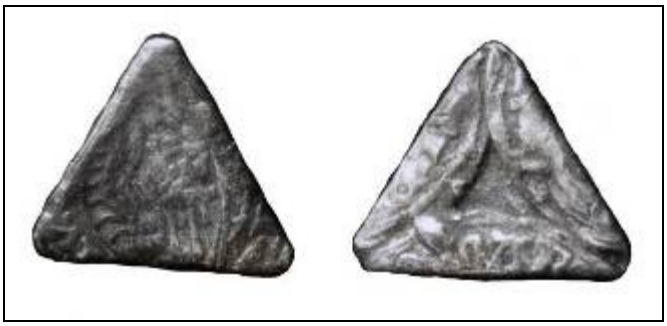


Figure 7.20 The Congham (Norfolk) Virgin and Child bezel.

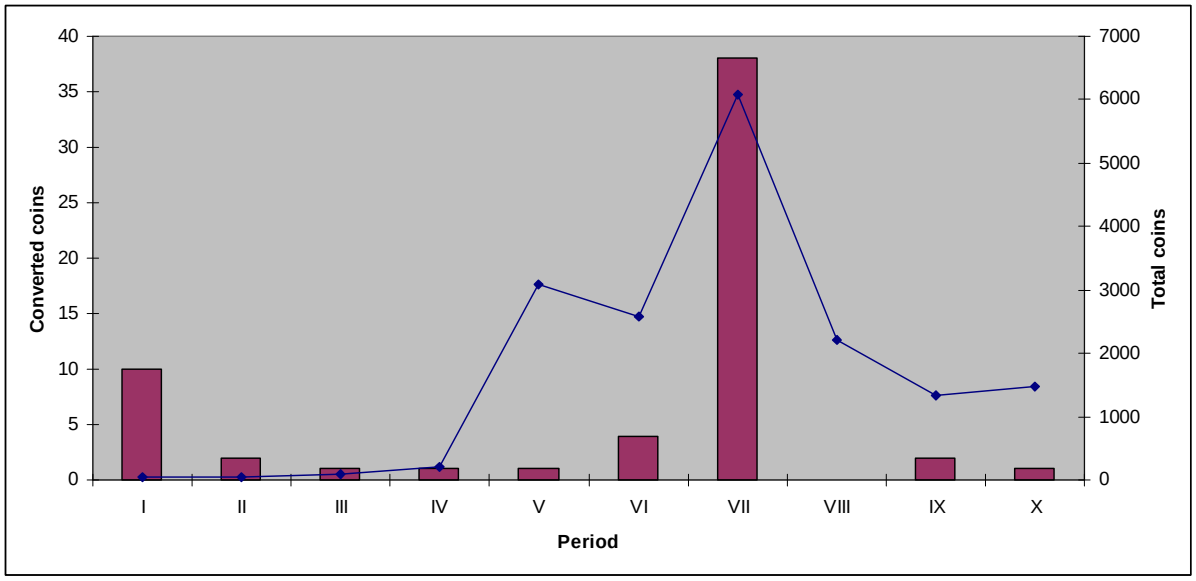
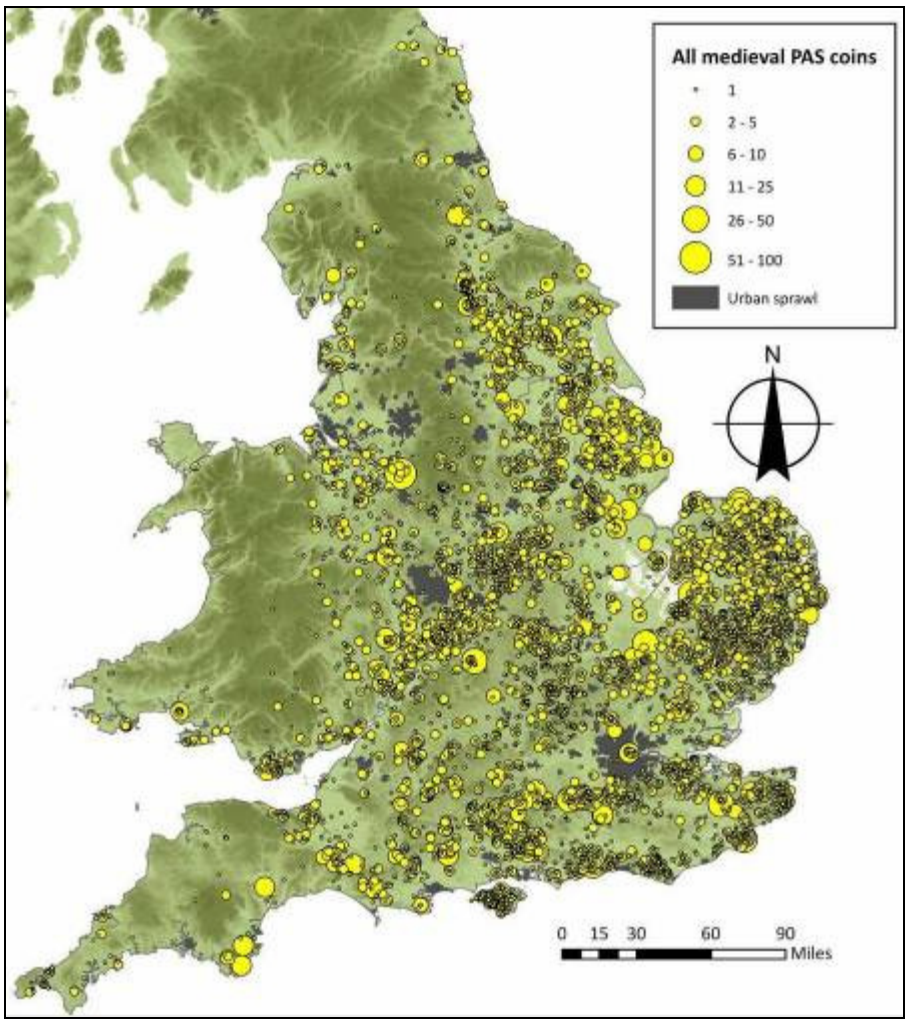


Figure 7.21 Coin jewellery against total coins by period.

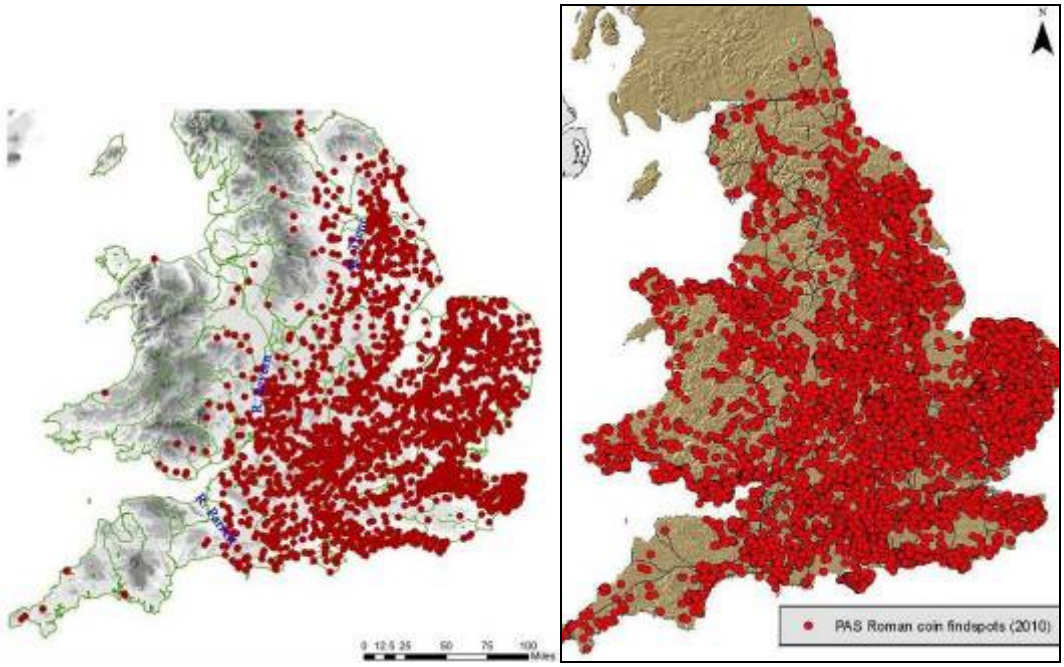
APPENDIX A – MAPS



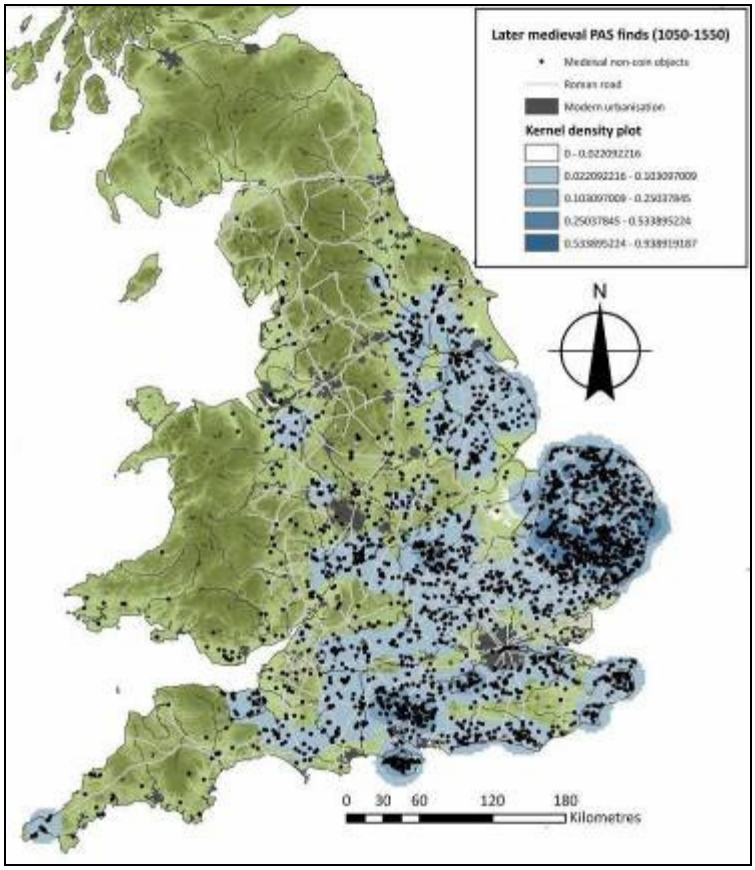
Map 2.1 Regional divisions used in this thesis.



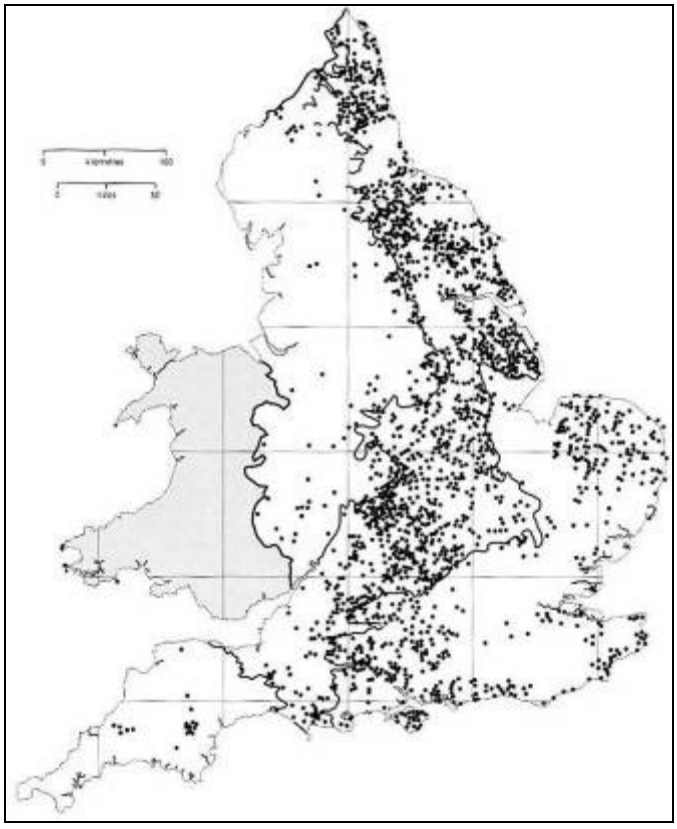
Map 3.1 Distribution map of all PAS medieval coin finds (1066-1544).



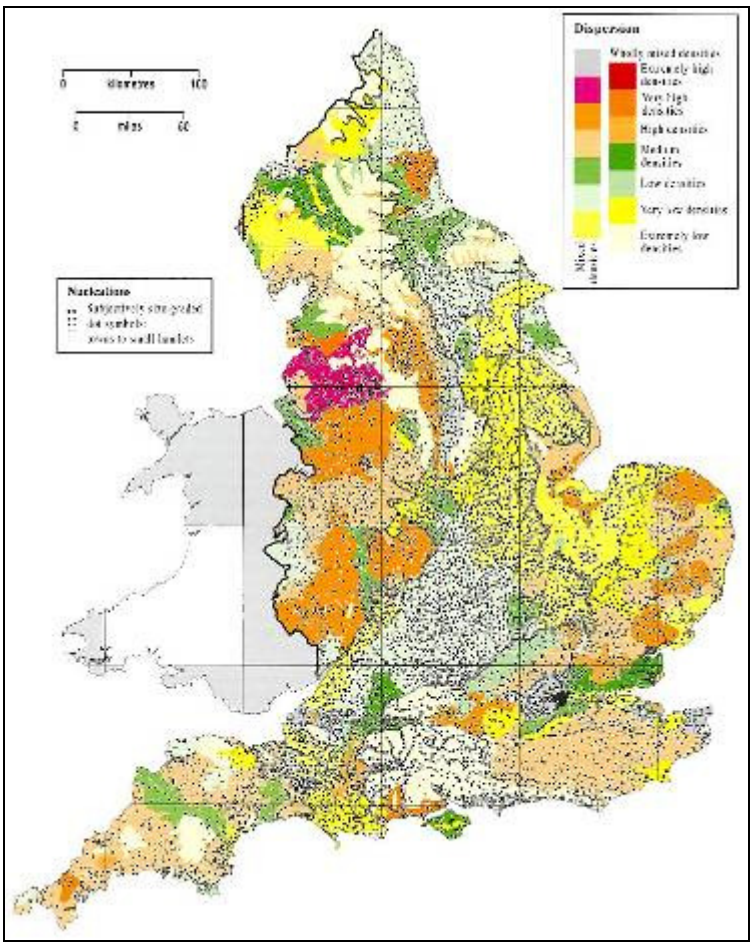
Maps 3.2a and b. Comparative maps of Iron Age and Roman coin finds (Leins 2011; Walton 2011).



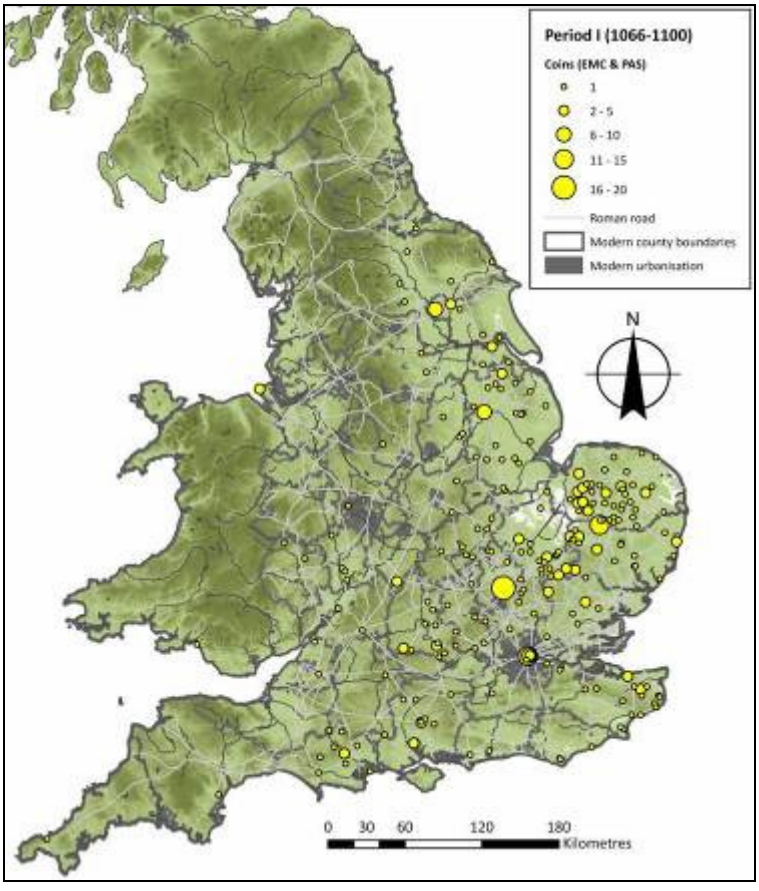
Map 3.3 Later medieval non-coin finds on PAS. The finds include only objects dated to within the chronological phases of the coins.



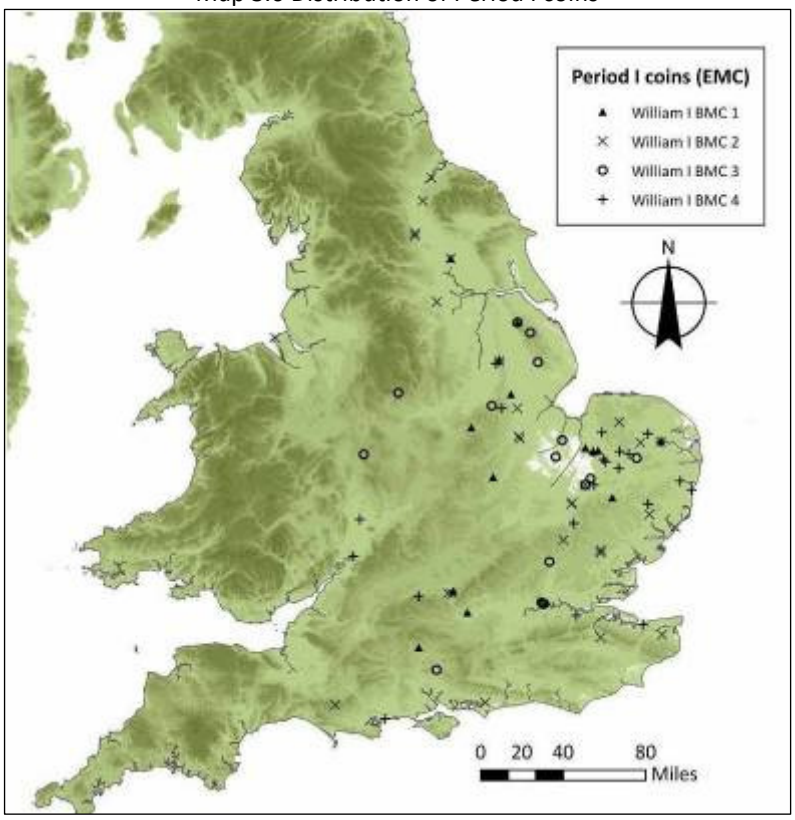
Map 3.4 Deserted medieval villages in England (after Roberts and Wrathmell 2000: 28). This map is based on Hurst (1968).



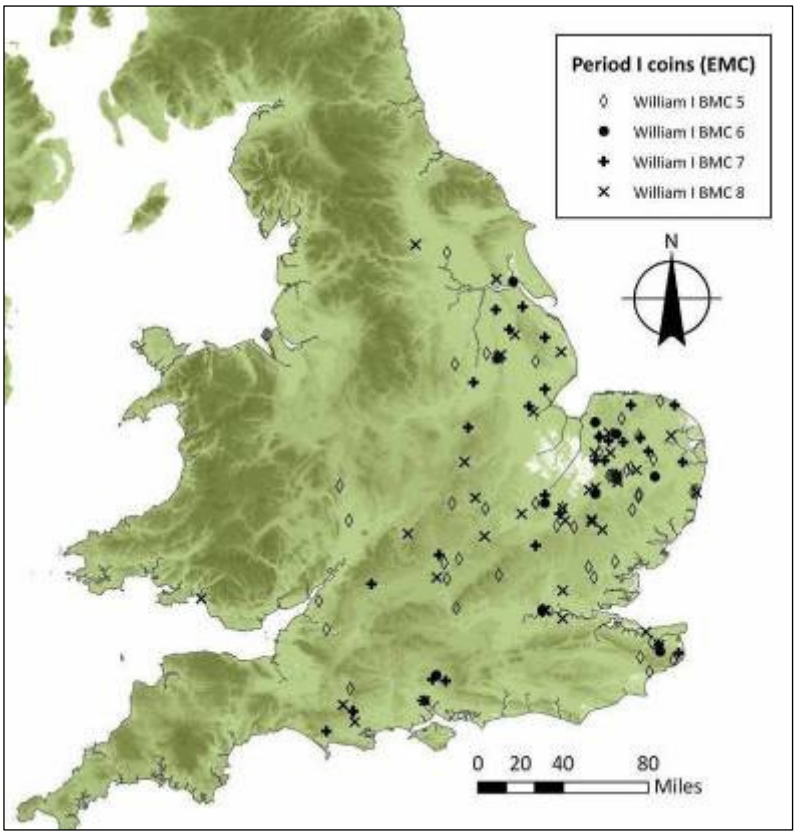
Map 3.5 Map of rural settlement in mid-nineteenth century England (after Roberts and Wrathmell 2000: 8).



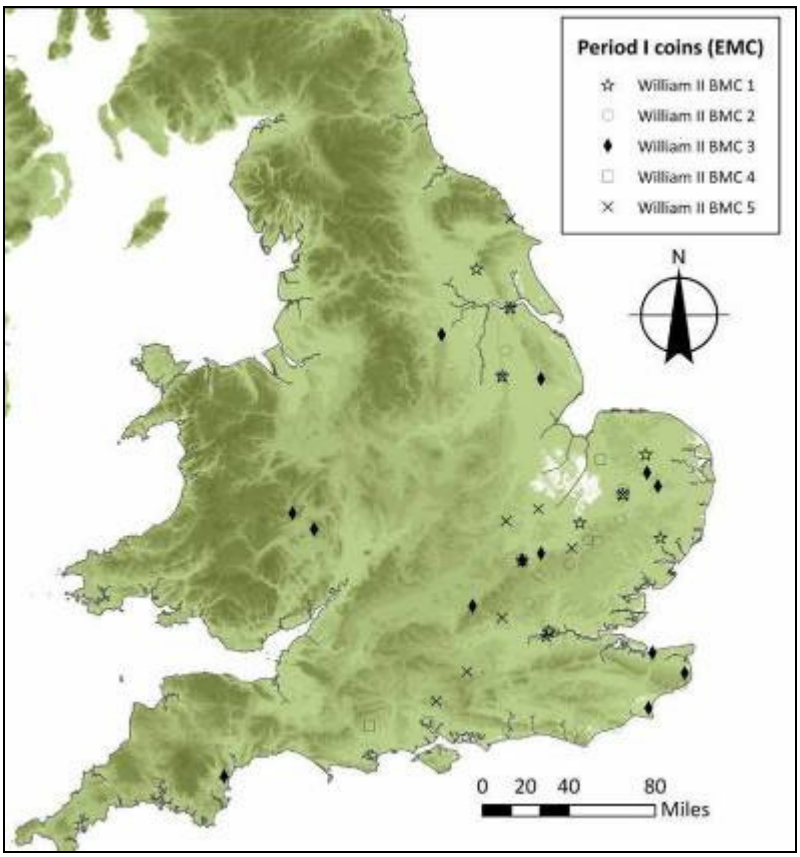
Map 3.6 Distribution of Period I coins



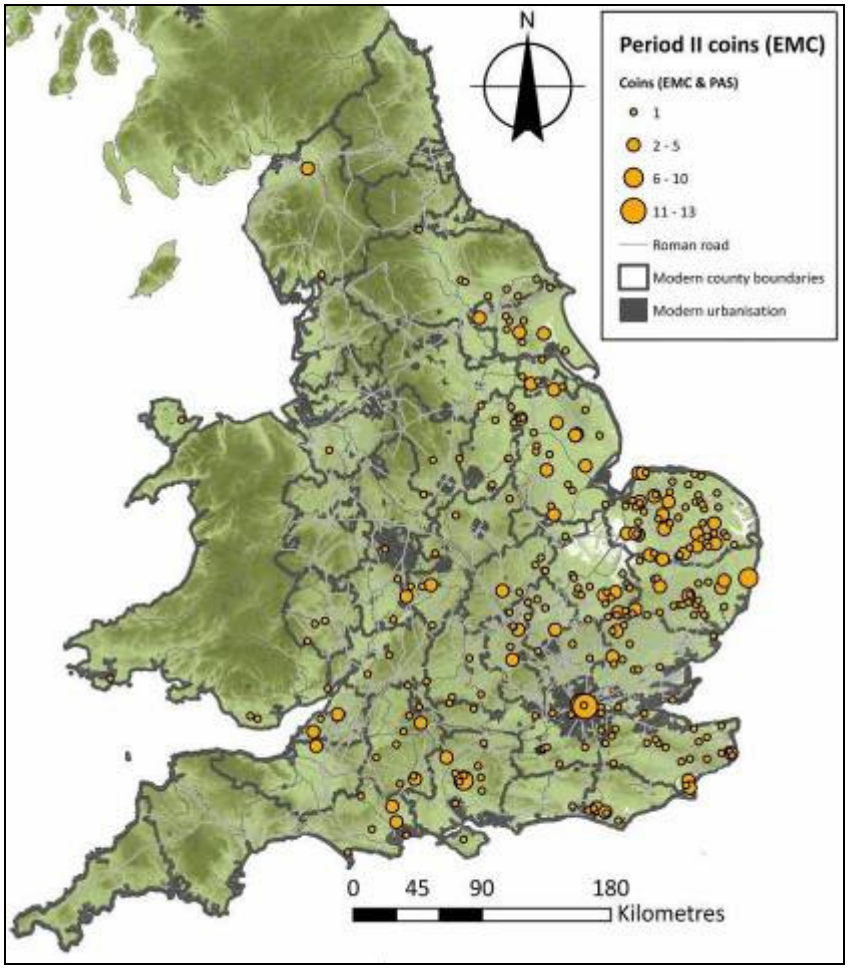
Map 3.7 Distribution of William I BMC 1-4.



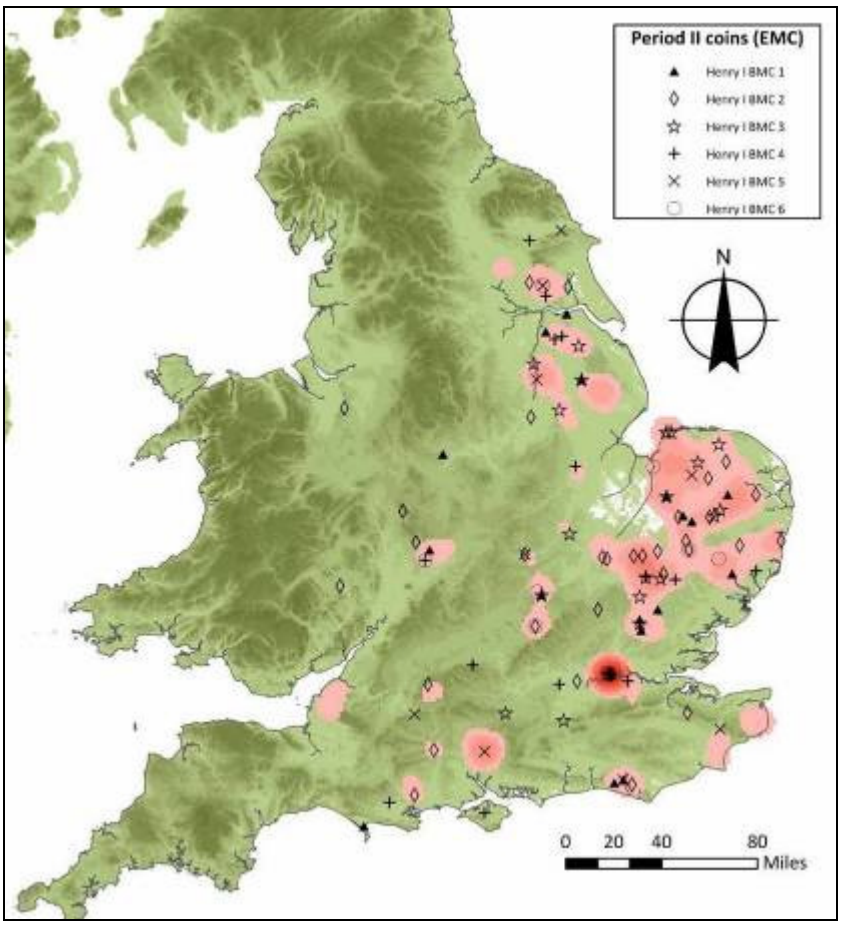
Map 3.8 Distribution of William I BMC 5-8.



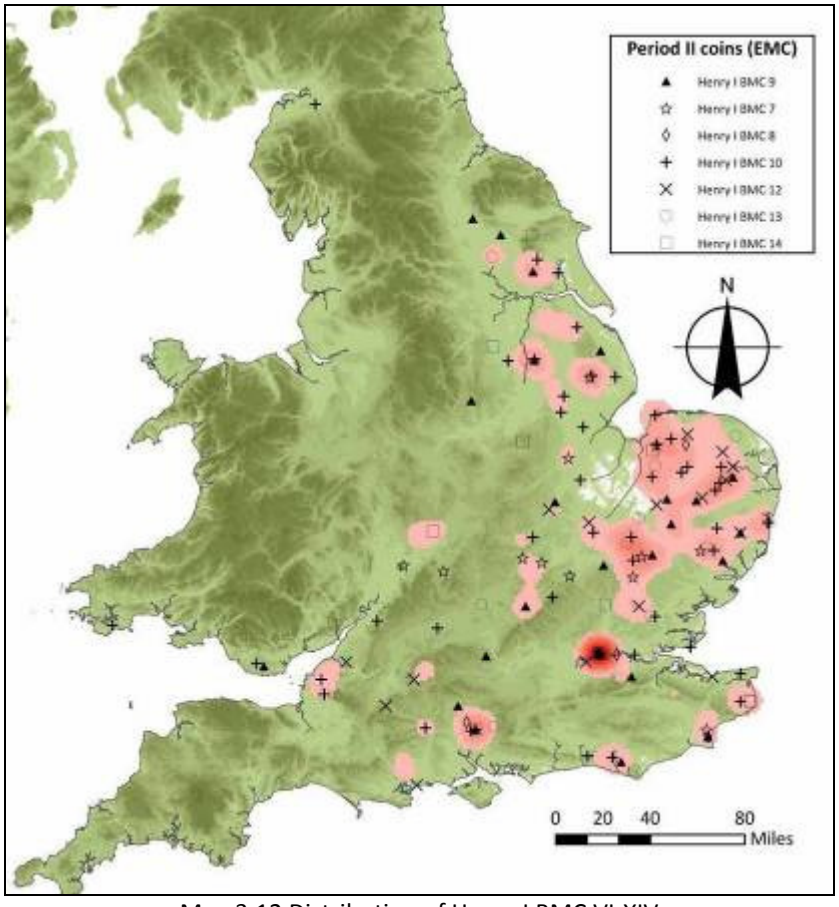
Map 3.9 Distribution of William II BMC 1-5.



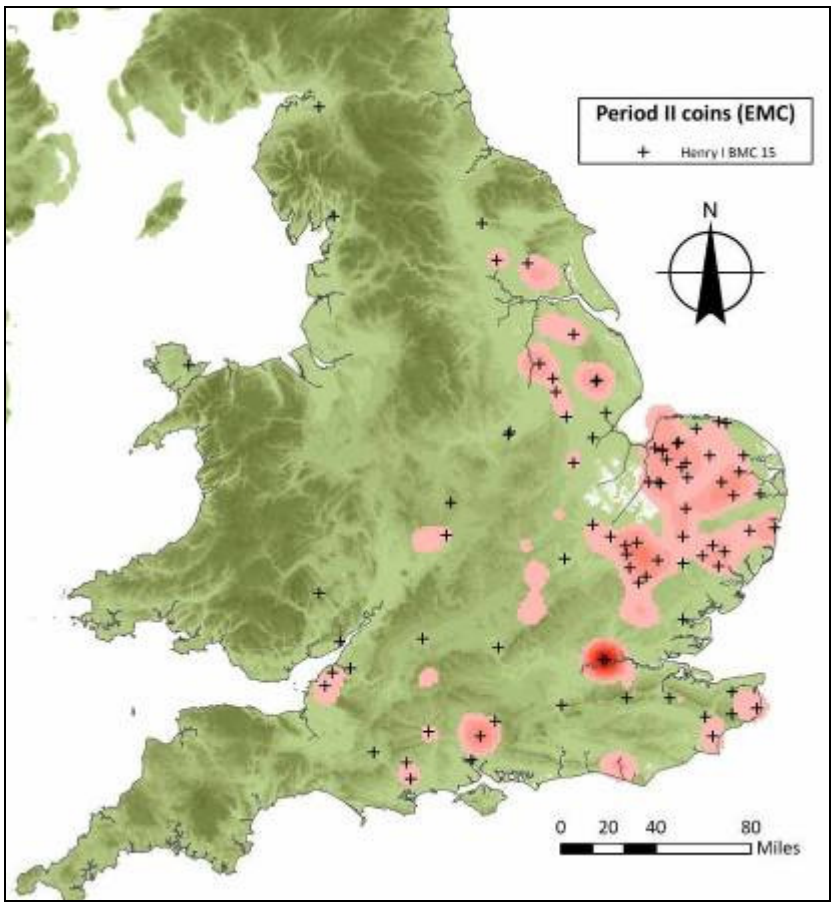
Map 3.10 Distribution of Period II coins



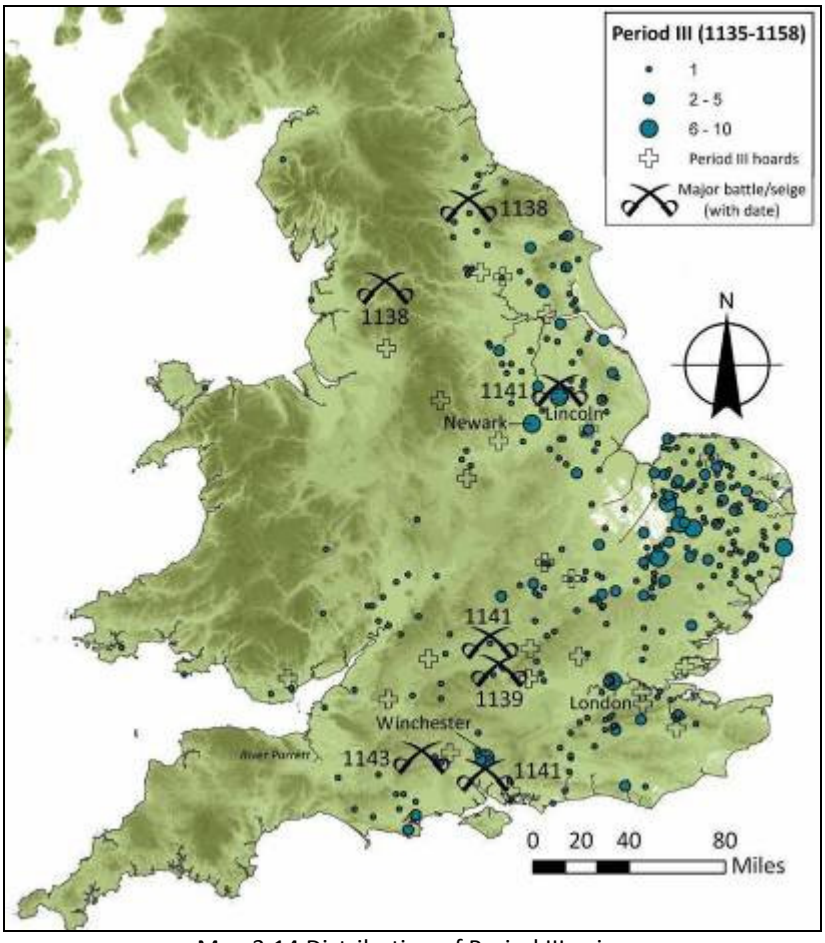
Map 3.11 Distribution of Henry I BMC I-VI



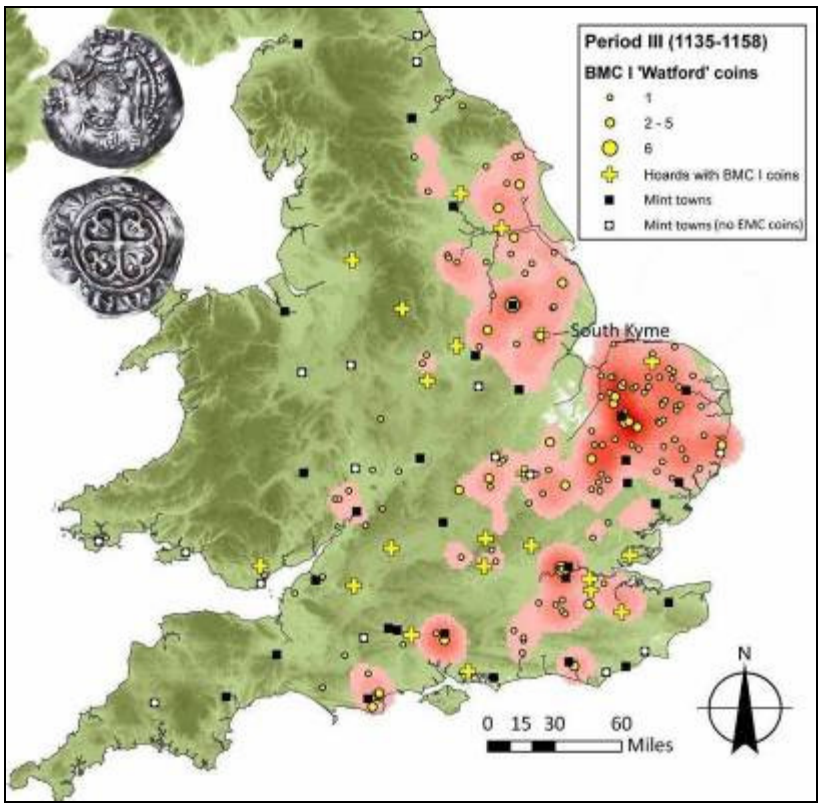
Map 3.12 Distribution of Henry I BMC VI-XIV



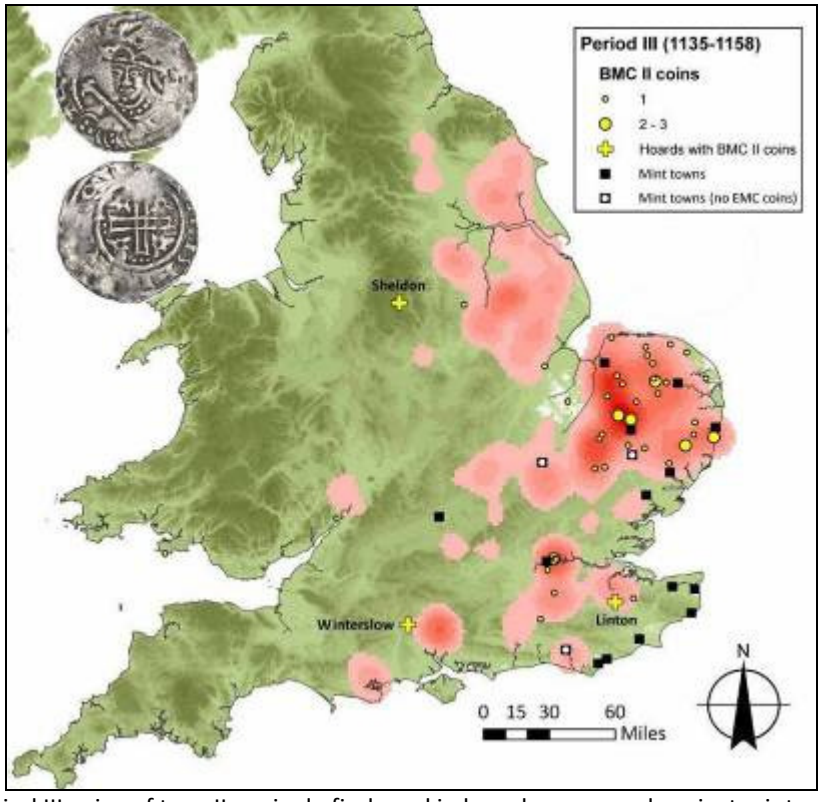
Map 3.13 Distribution of Henry I BMC XV



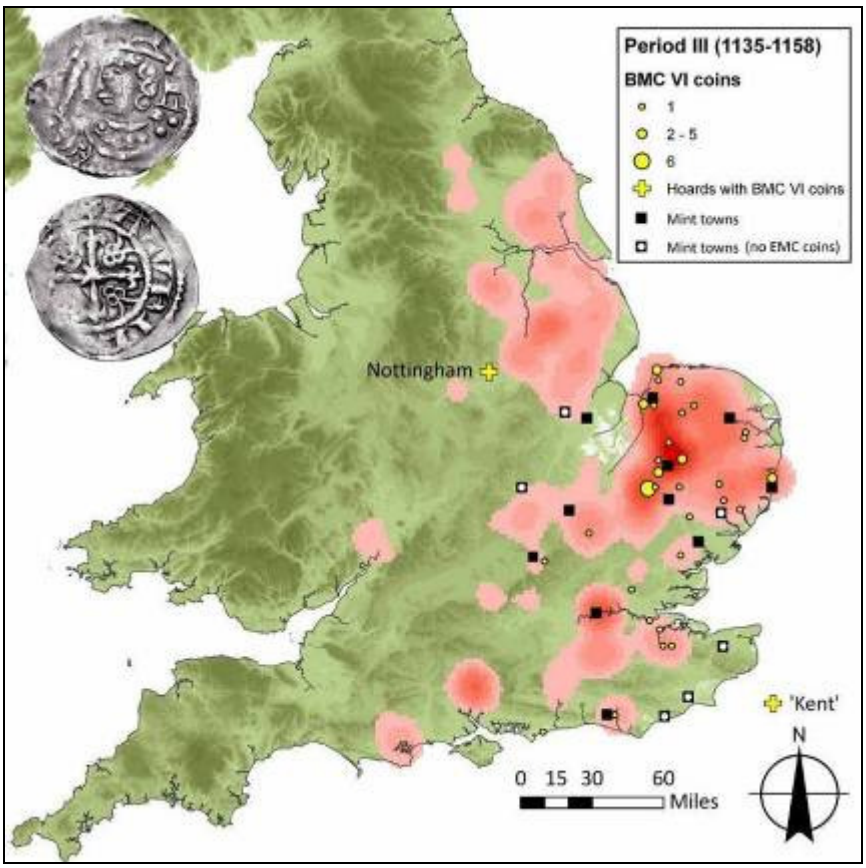
Map 3.14 Distribution of Period III coins



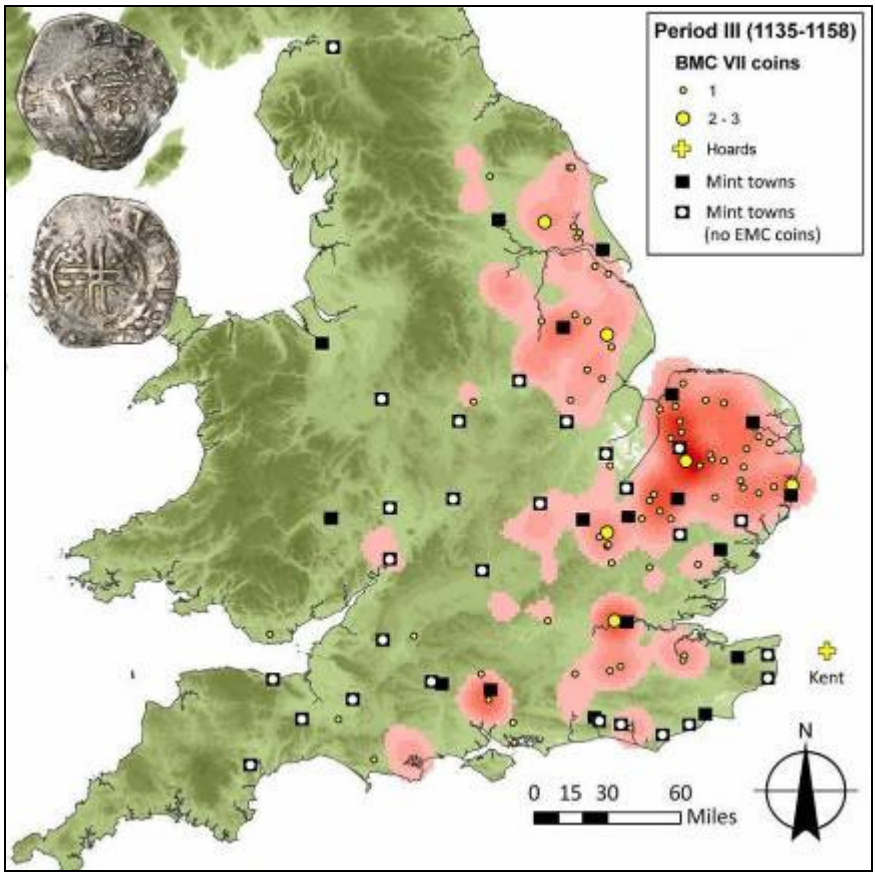
Map 3.15 Distribution of Stephen's BMC I coins as single finds and in hoards compared against the kernel density of all Period III finds. The concentration does not equate well with the distribution of mints in northern and western parts of the country.



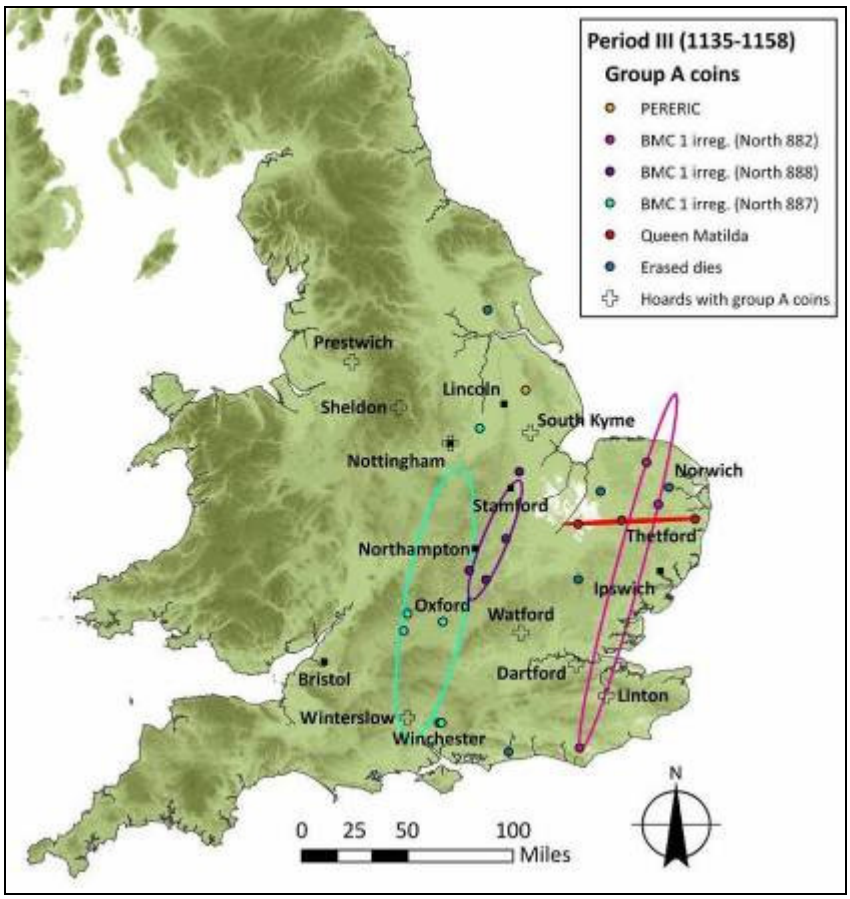
Map 3.16 Period III coins of type II as single finds and in hoards compared against mints and density of all Period III finds. Note the concentration of finds to areas with mints under Stephen's control during the Civil War period.



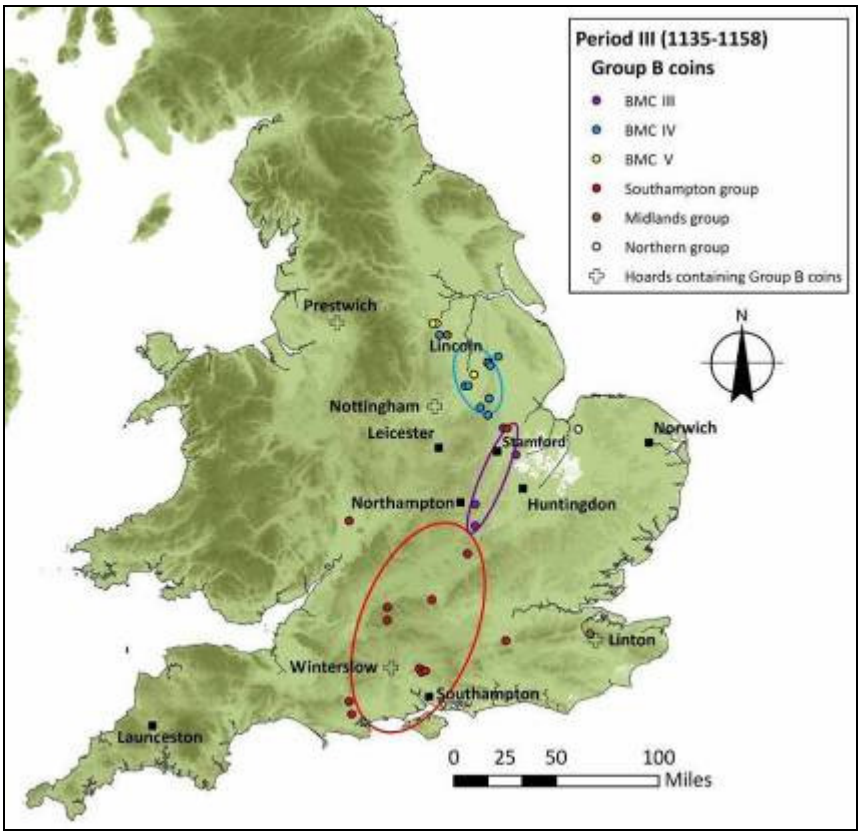
Map 3.17 Period III coins of type VI as single finds and in hoards.



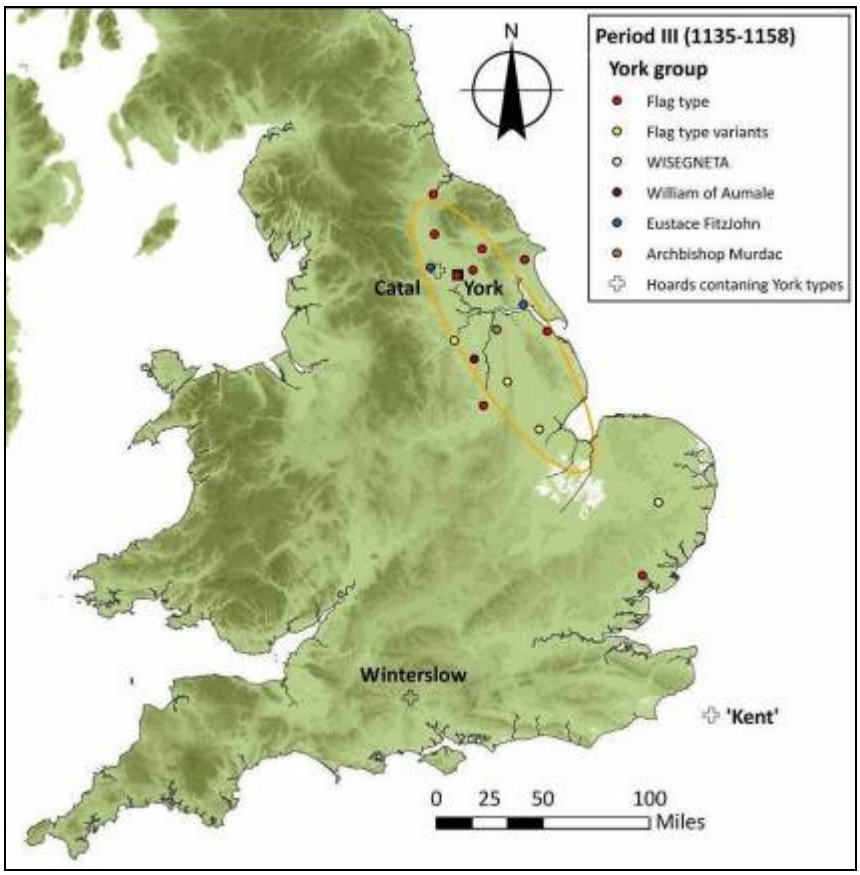
Map 3.18 Period III coins of type VII as single finds. A large proportion of mints are unrepresented by coins.



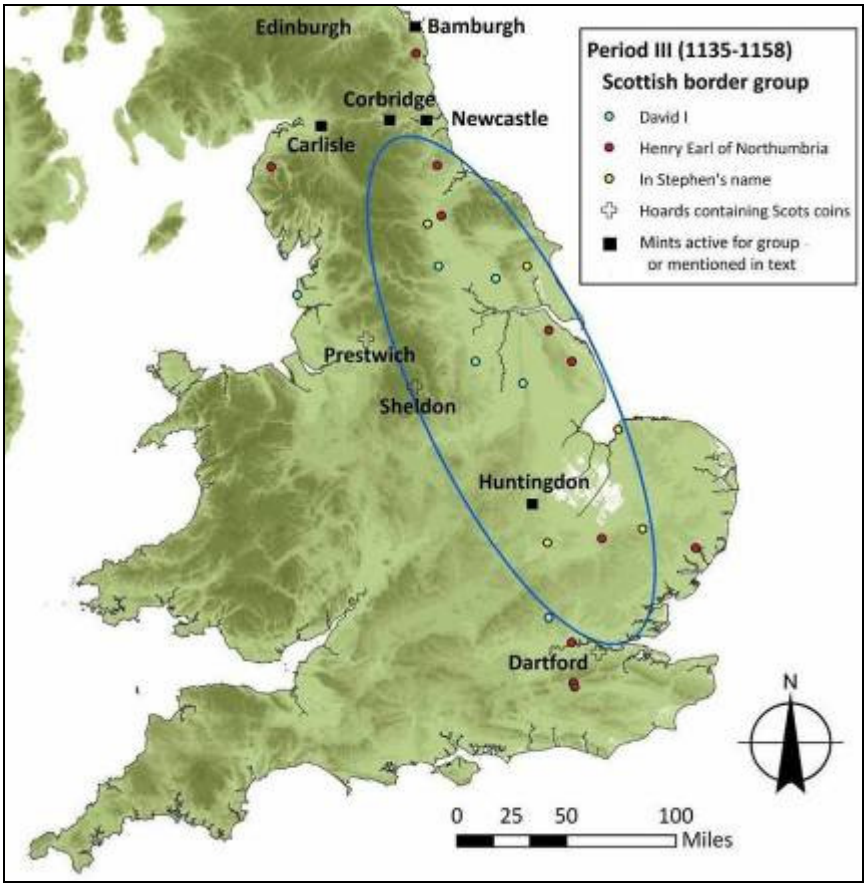
Map 3.19 Pereric, Erased die and irregular type 1 single find and hoard coins. Directional distribution ellipses drawn to one standard deviation.



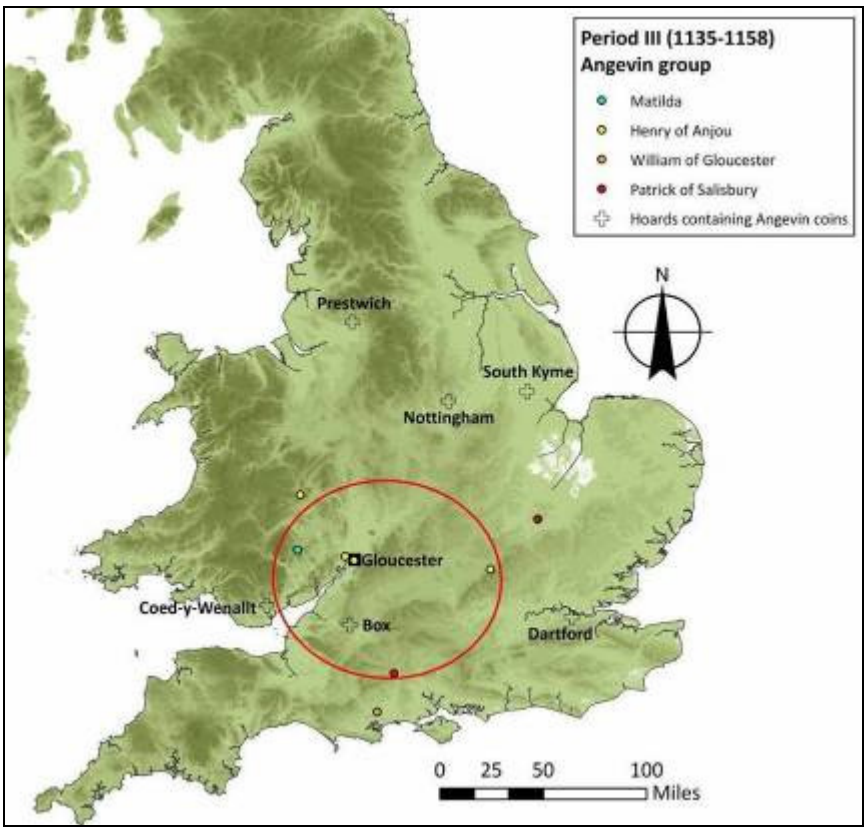
Map 3.20 Distribution of local issues in Period III. Directional distribution to one standard deviation calculated for BMC III (purple), BMC IV (blue) and Southampton (red).



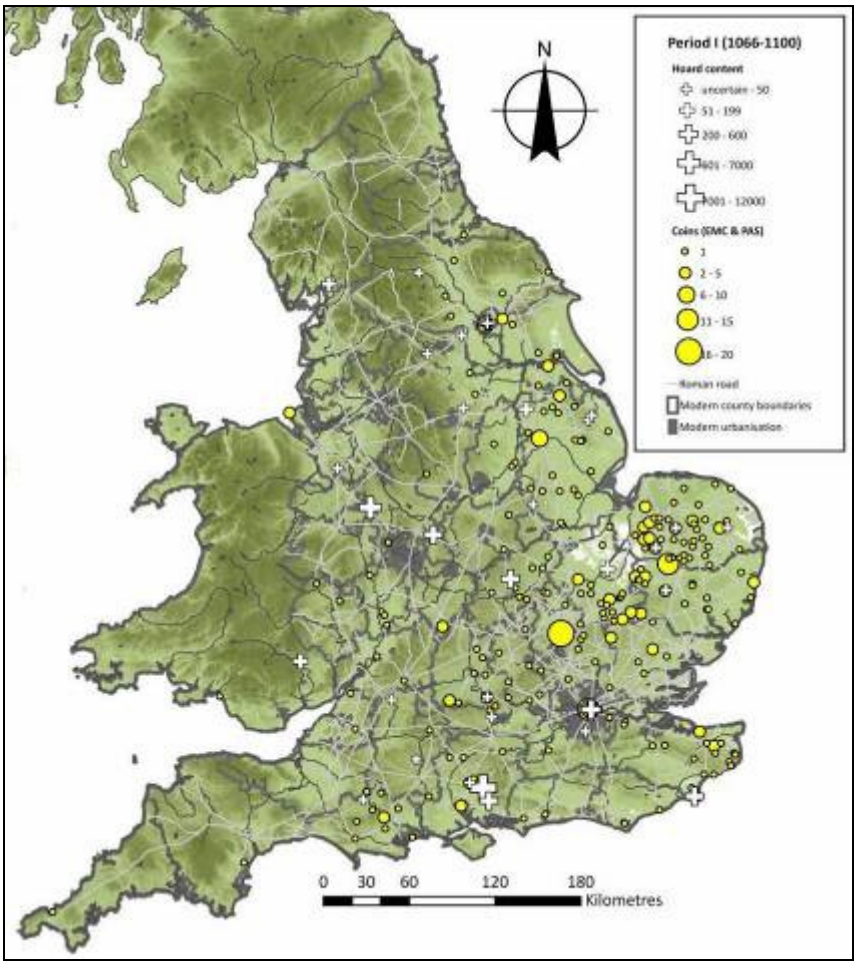
Map 3.21 Group C coins minted in York and hoards containing York coins. Directional distribution ellipse to one standard deviation.



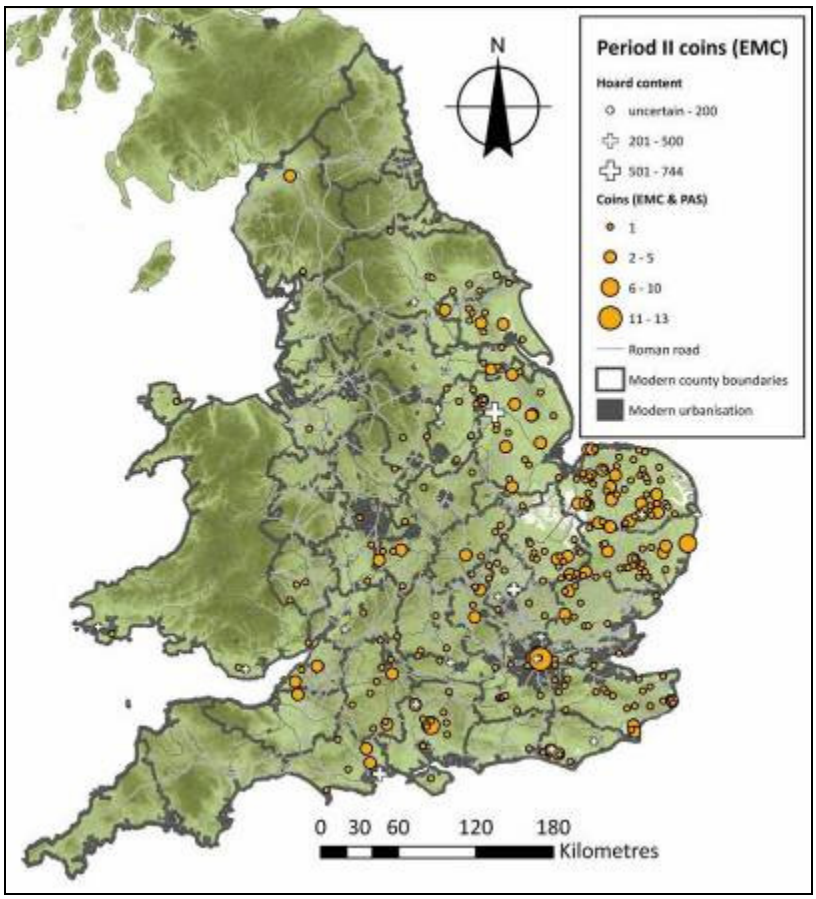
Map 3.22 Distribution of Scottish border issues. Directional distribution to one standard deviation.



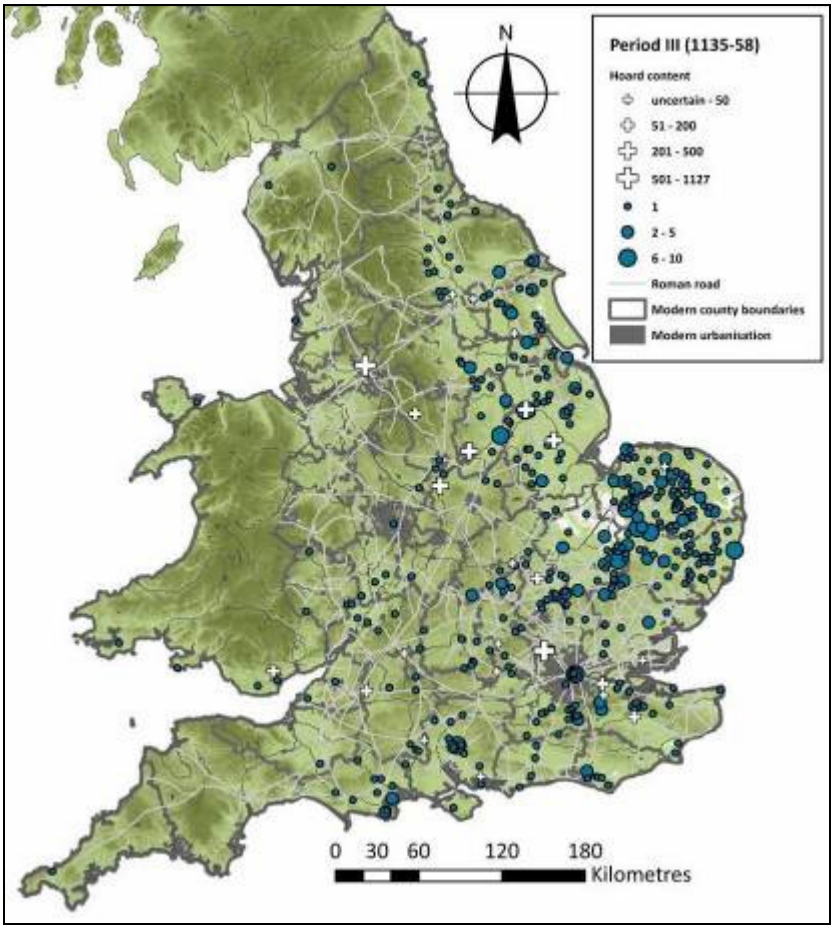
Map 3.23 Coins of the Angevin party as single finds and hoards. Directional distributional ellipse to one standard deviation.



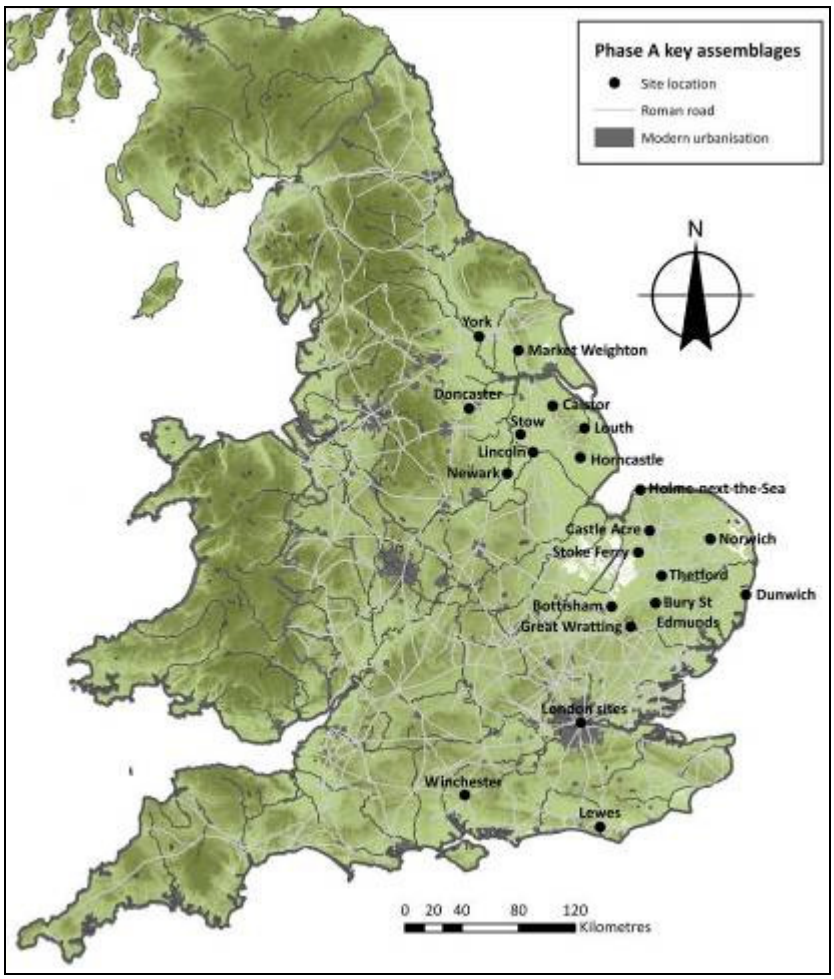
Map 3.24 PI hoards and single finds



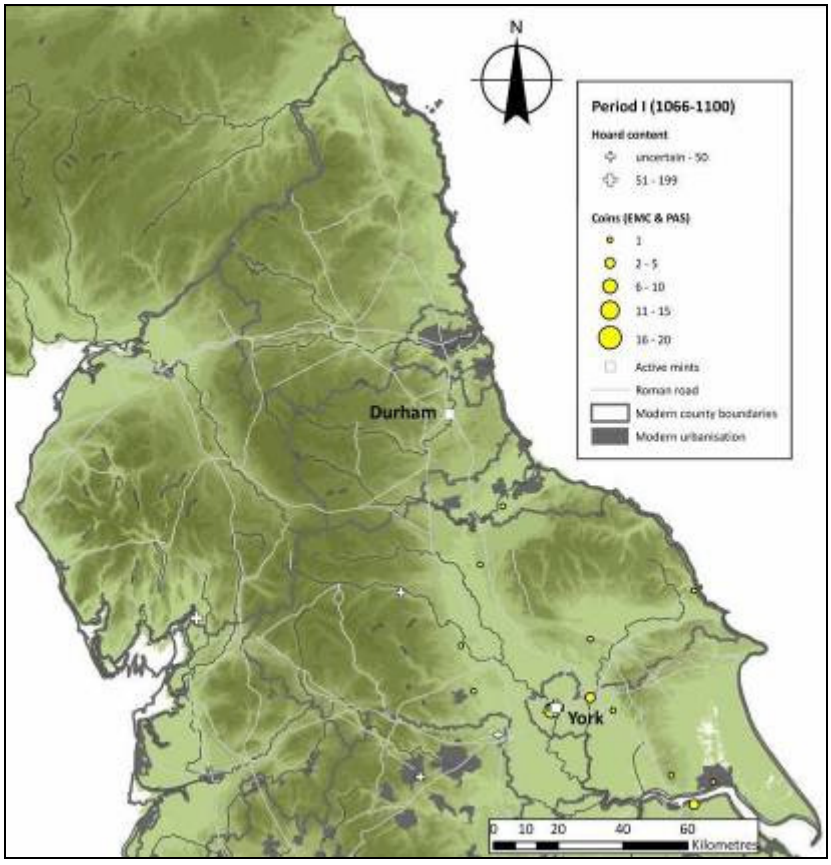
Map 3.25 PII hoards and single finds



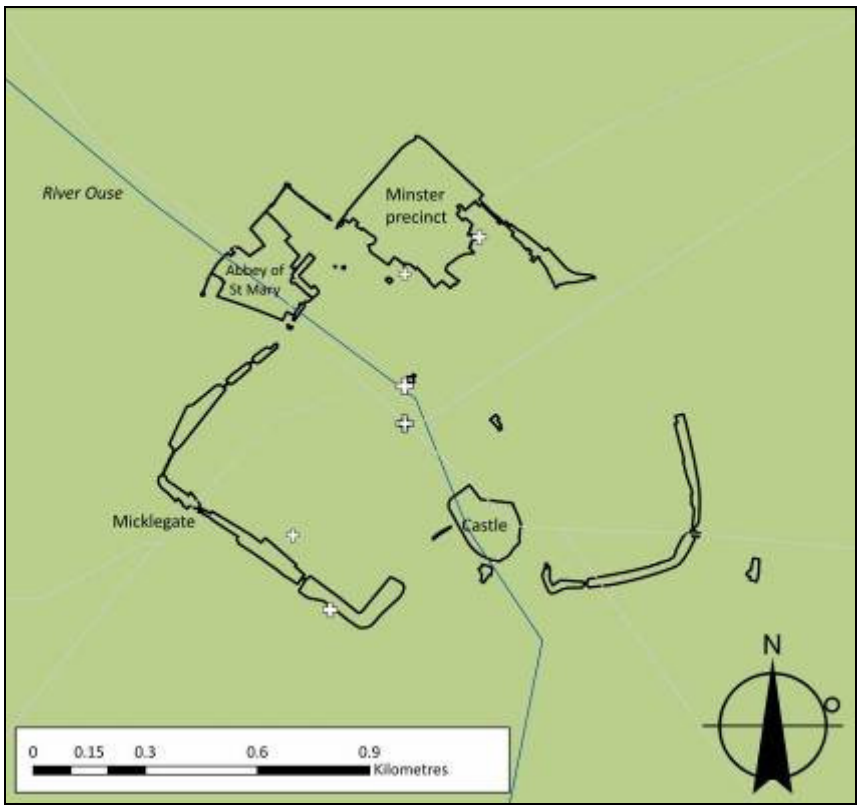
Map 3.26 PIII hoards and single finds



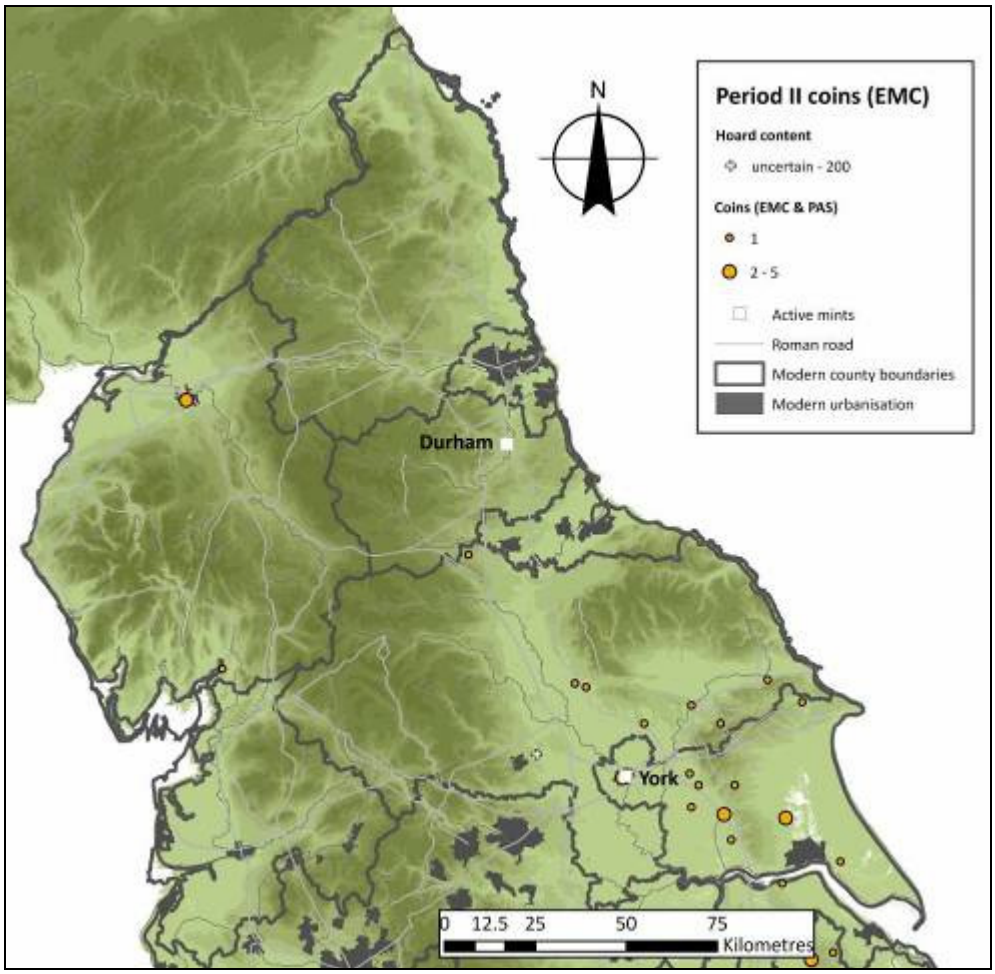
Map 3.27 Locations of key Phase A assemblages mentioned in the text.



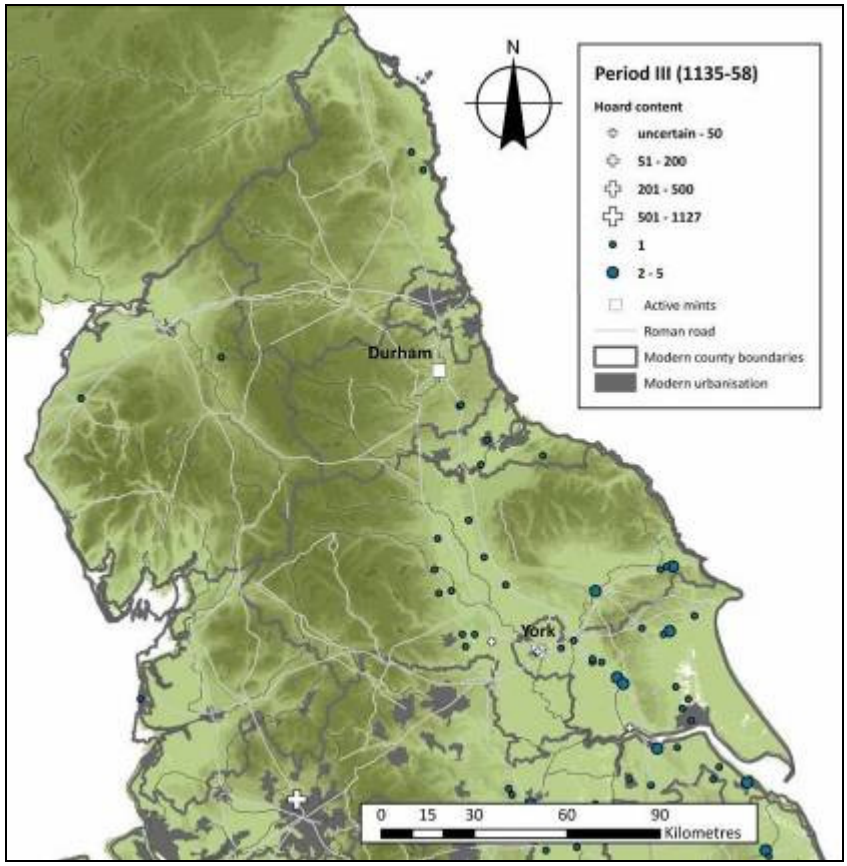
Map 3.28 Period I coins from the Northern region.



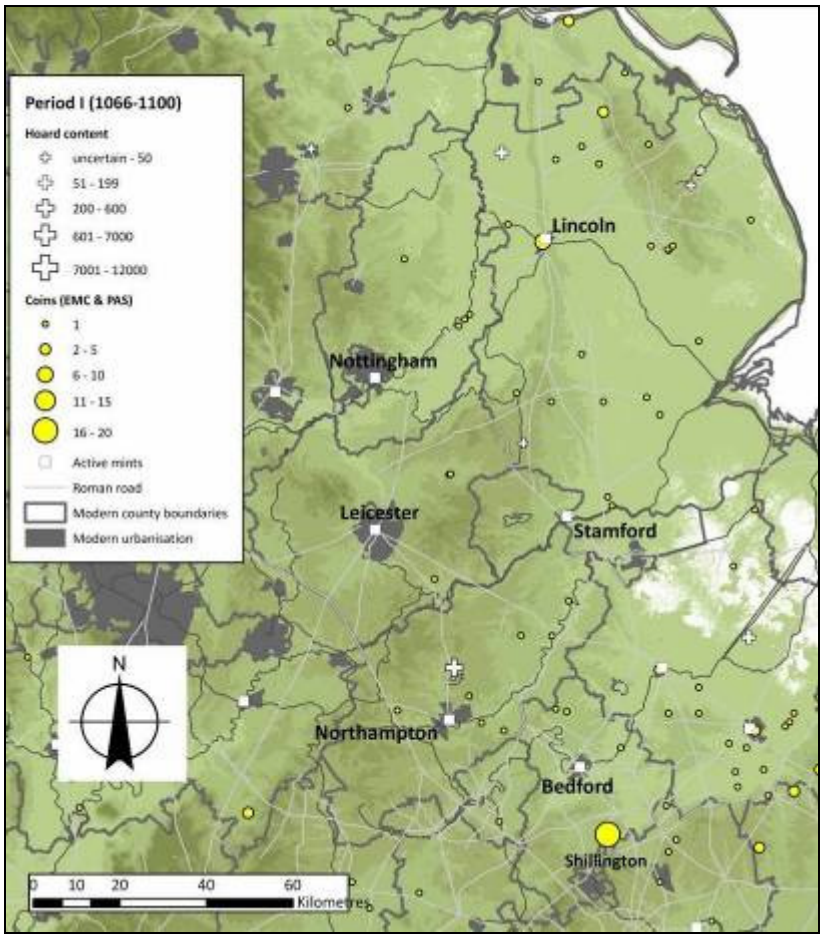
Map 3.29 Period I hoards from medieval York.



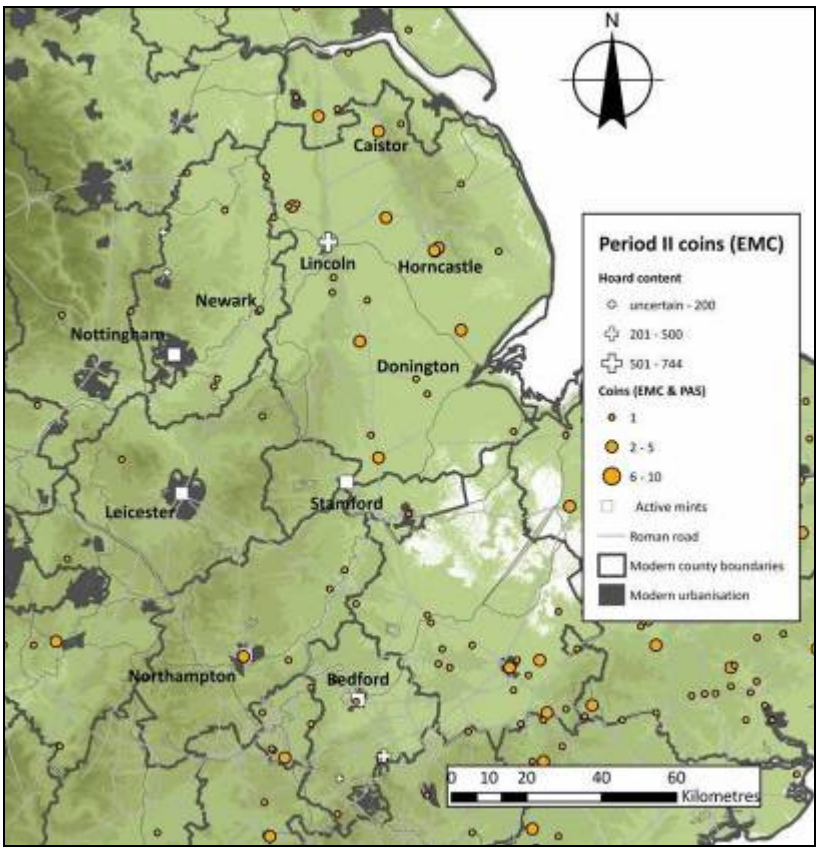
Map 3.30 Period II coins from the Northern region.



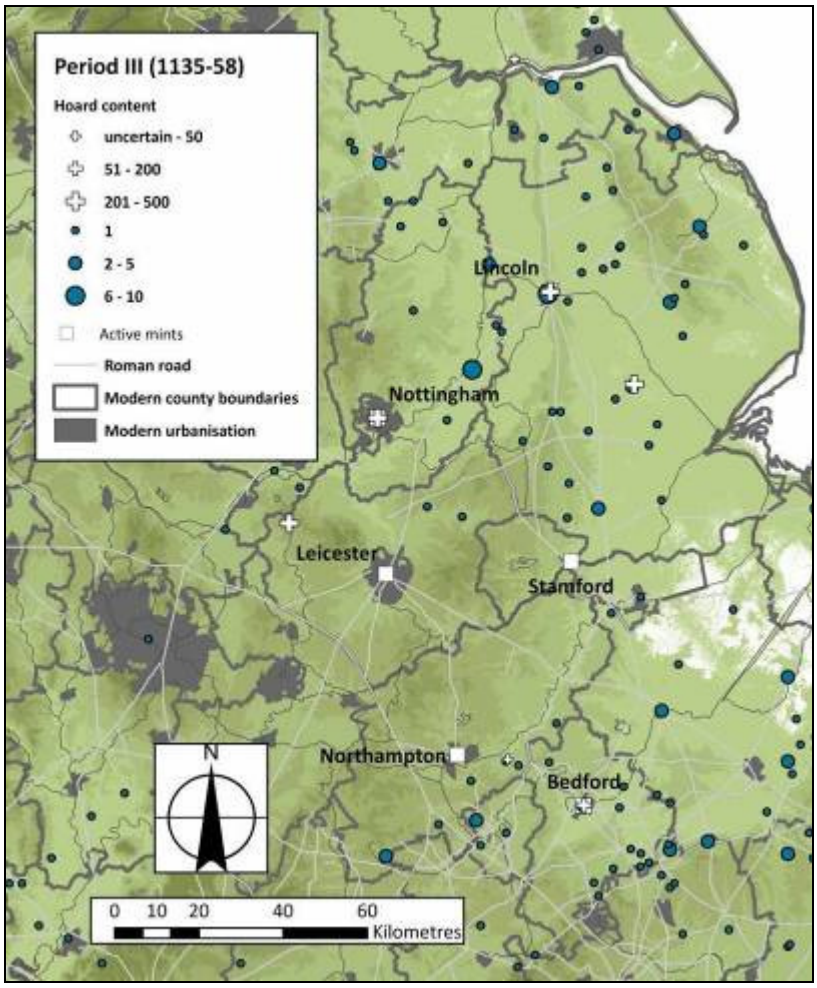
Map 3.31 Period III coins from the Northern region.



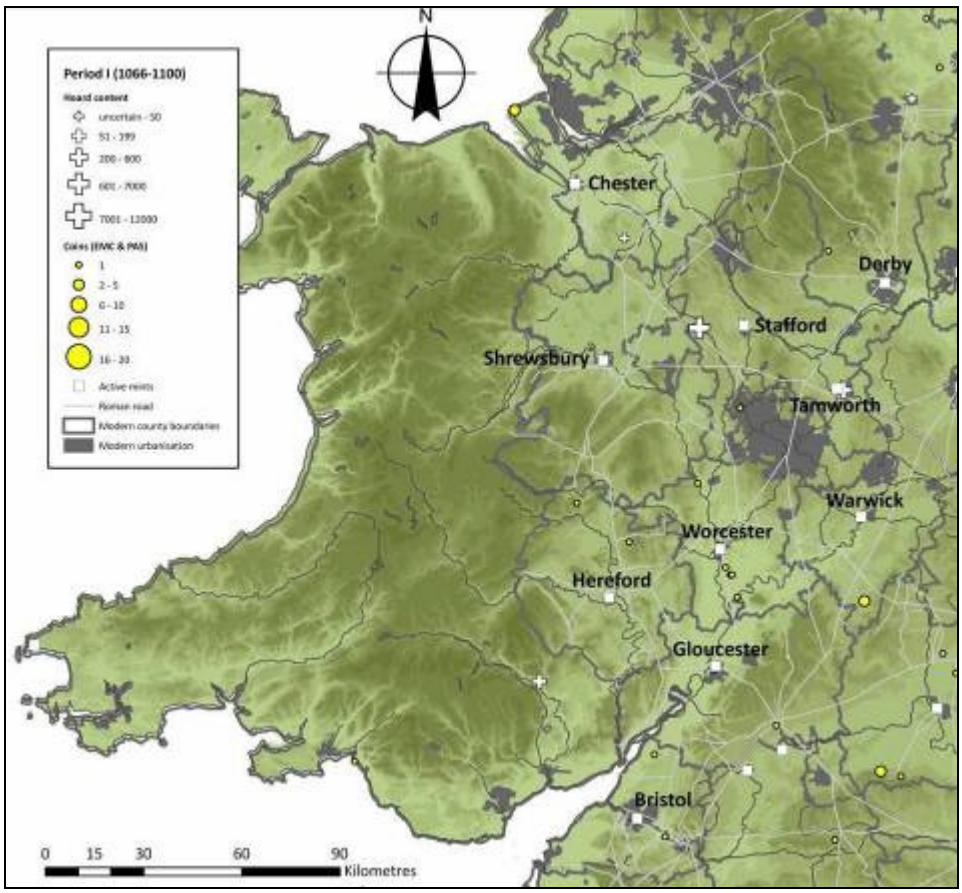
Map 3.32 Period I coins from the East Central region.



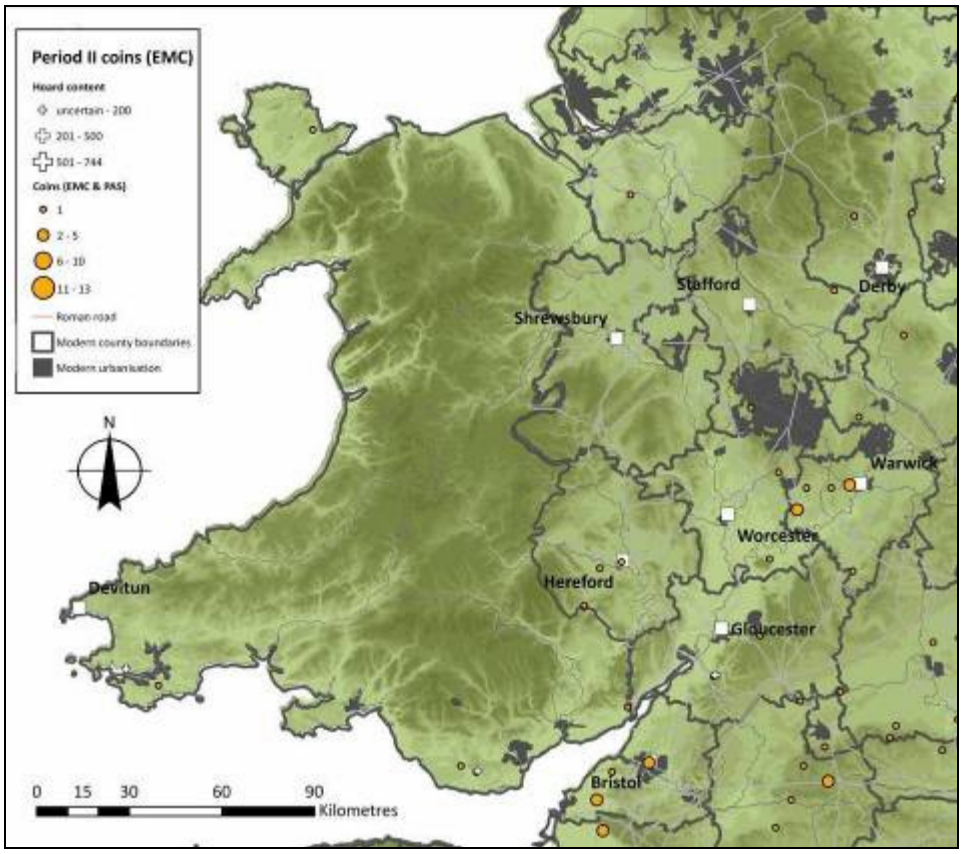
Map 3.33 Period II coins from the East Central region.



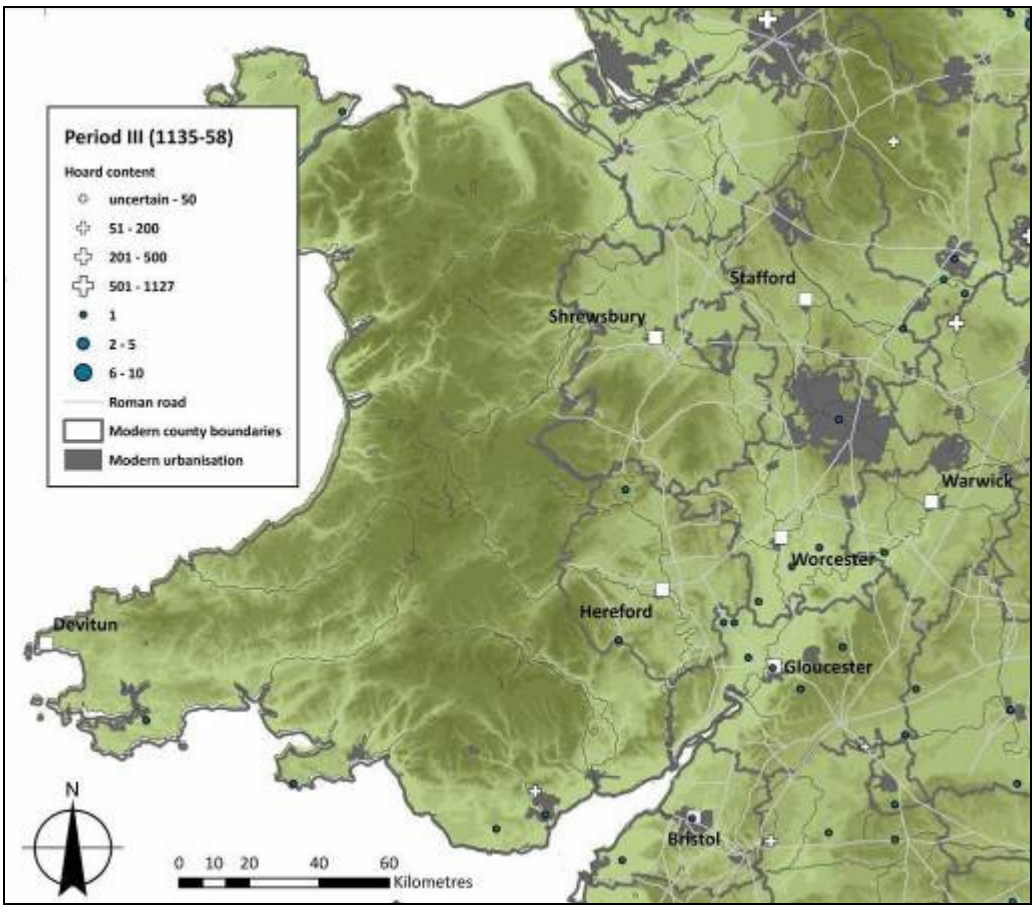
Map 3.34 Period III coins from the East Central region.



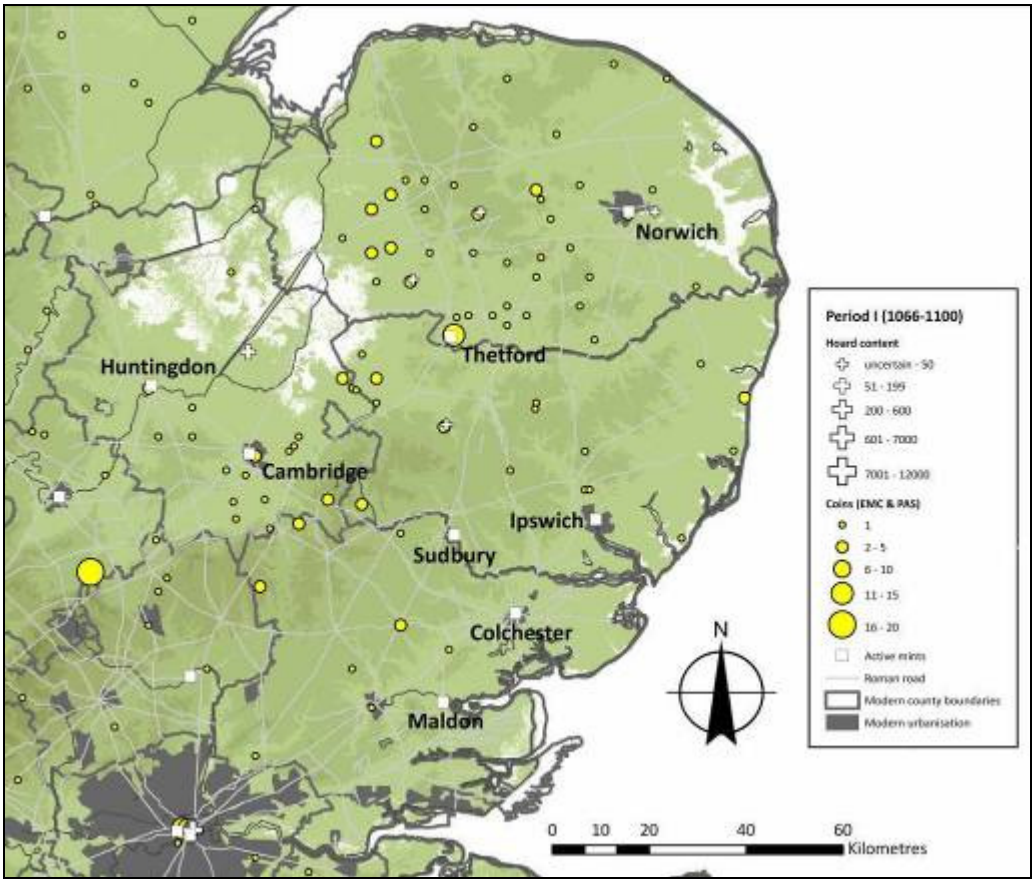
Map 3.35 Period I coins from the West Central region.



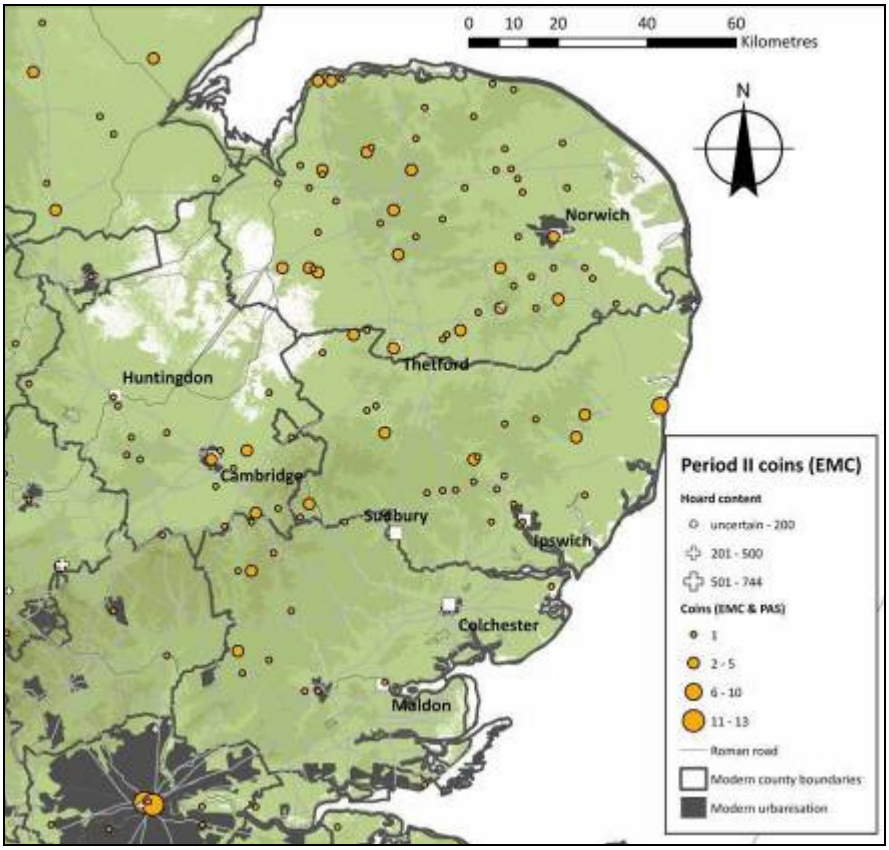
Map 3.36 Period II coins from the West Central region.



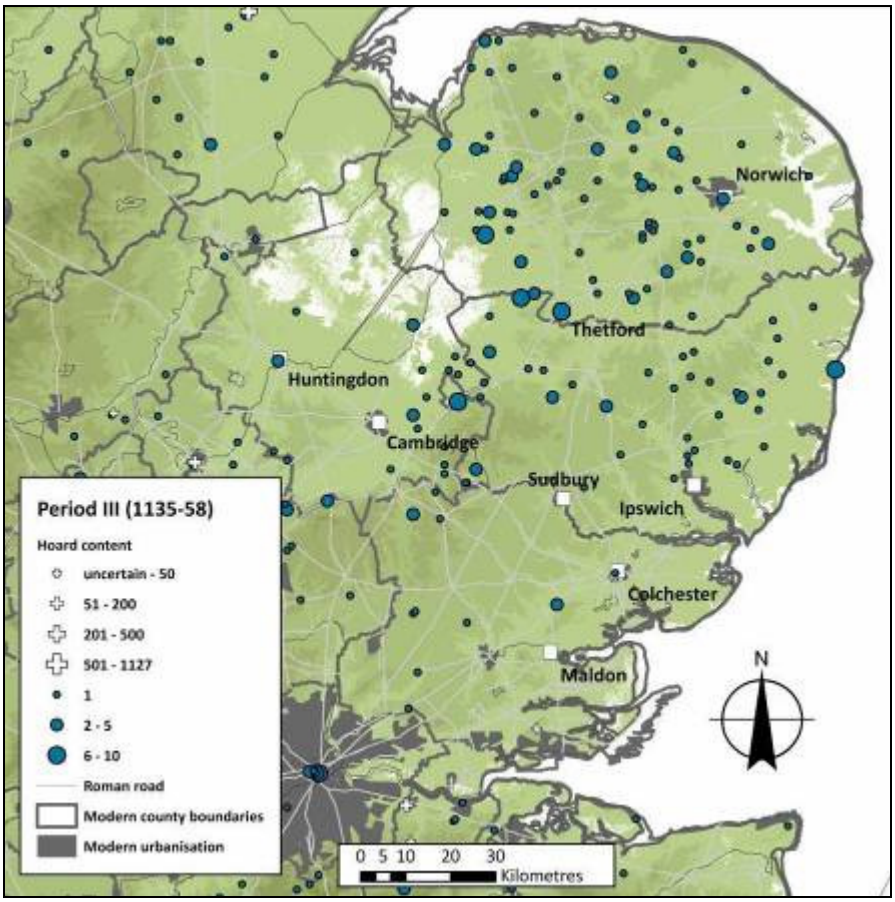
Map 3.37 Period III coins from the West Central region.



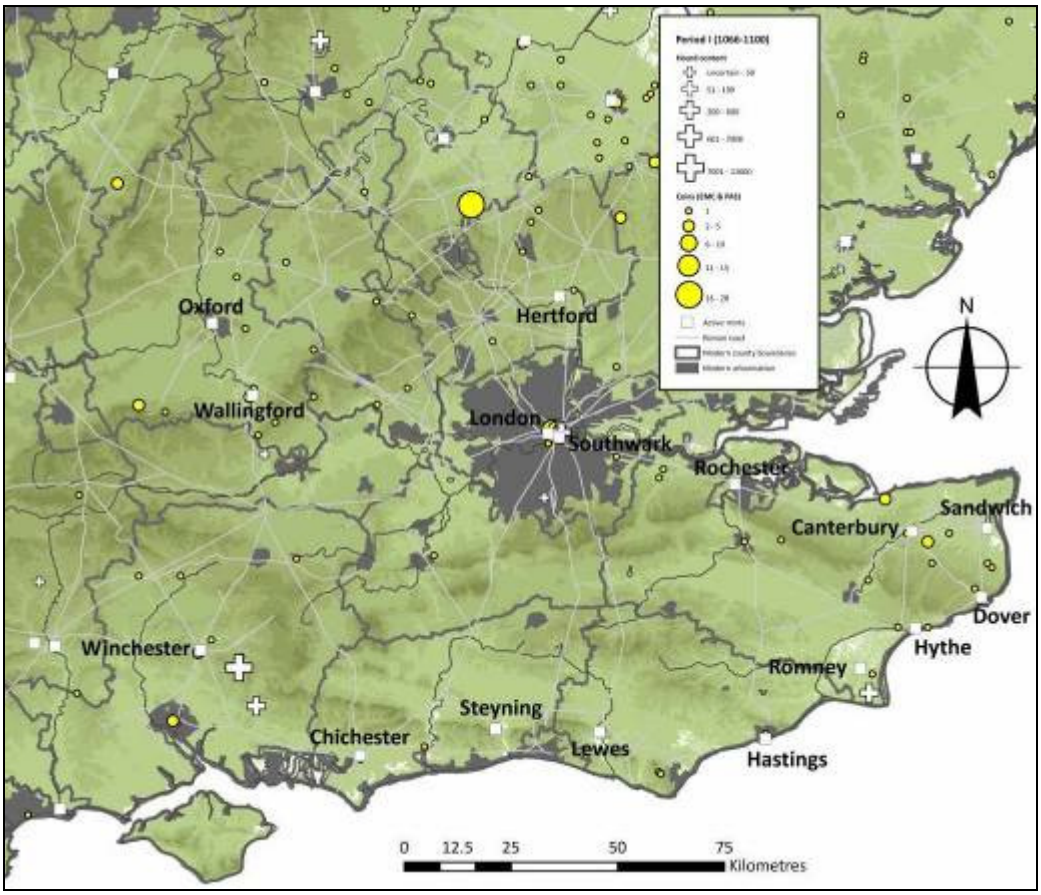
Map 3.38 Period I coins from the East Anglia region.



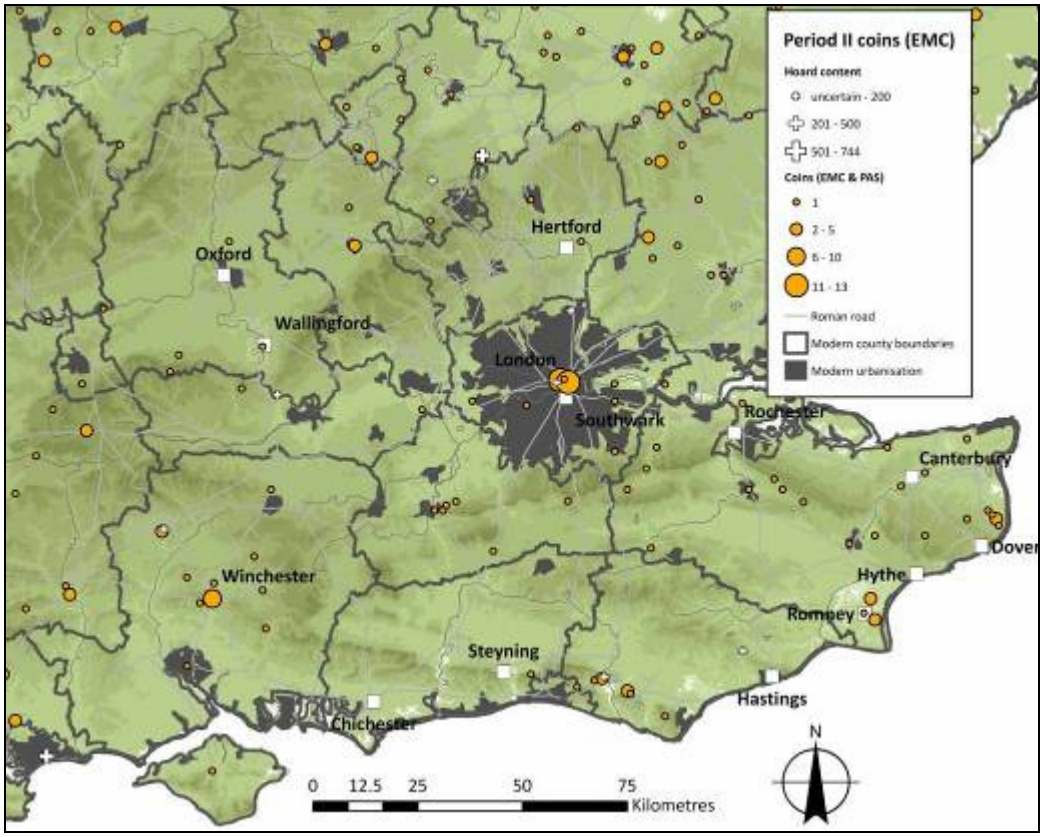
Map 3.39 Period II coins from the East Anglia region.



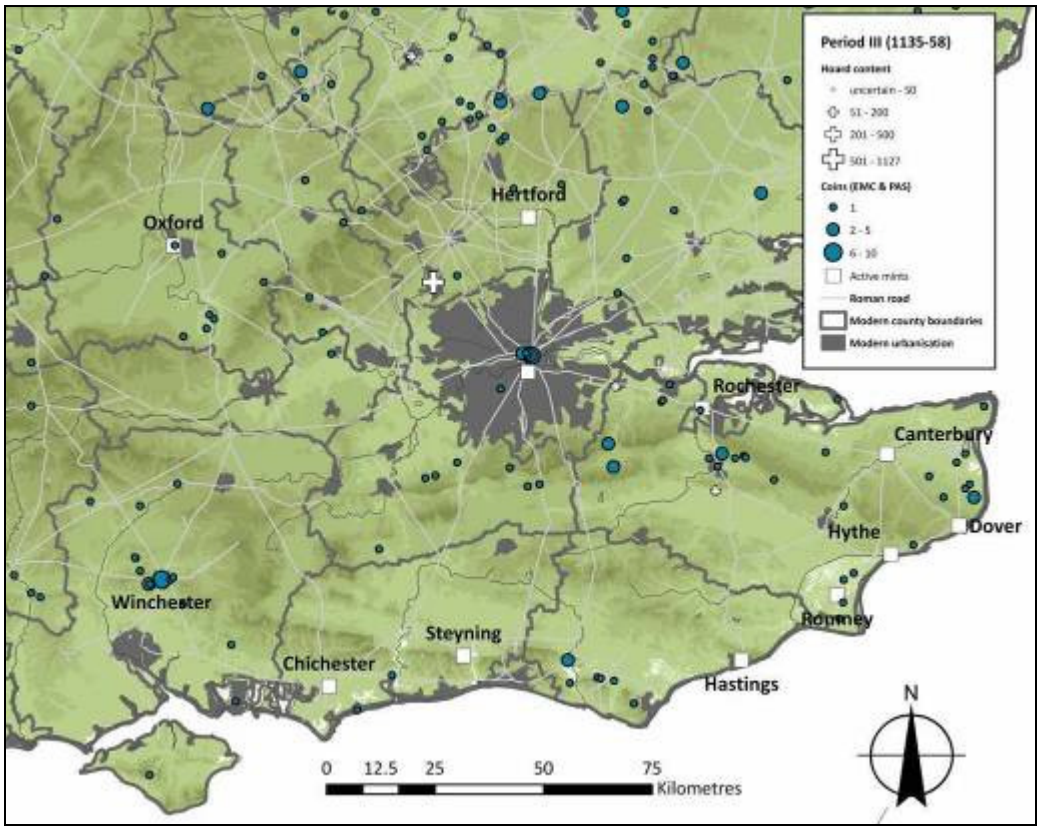
Map 3.40 Period III coins from the East Anglia region.



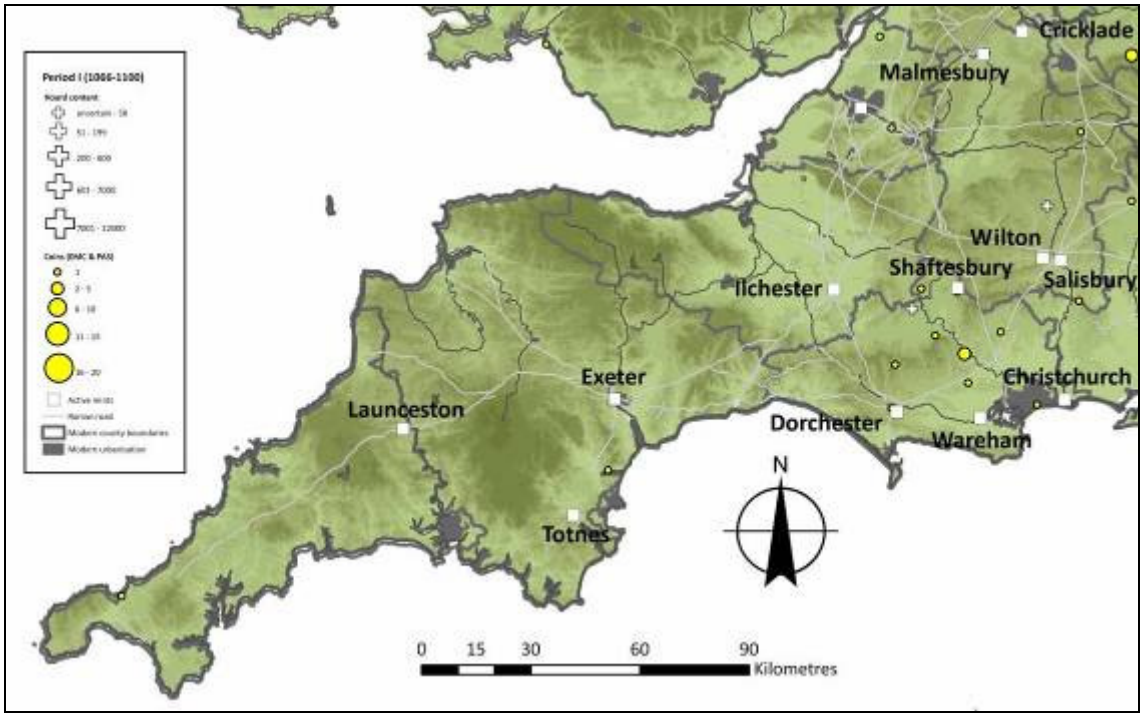
Map 3.41 Period I coins from the South Eastern region.



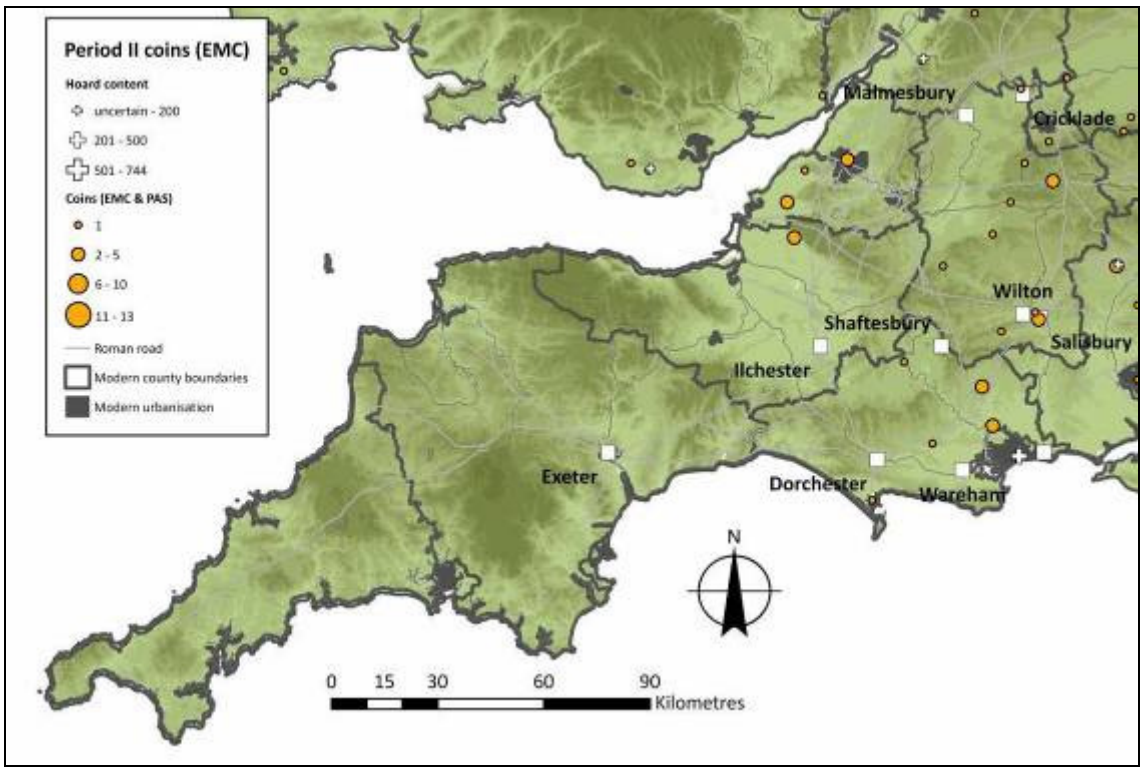
Map 3.42 Period II coins from the South Eastern region.



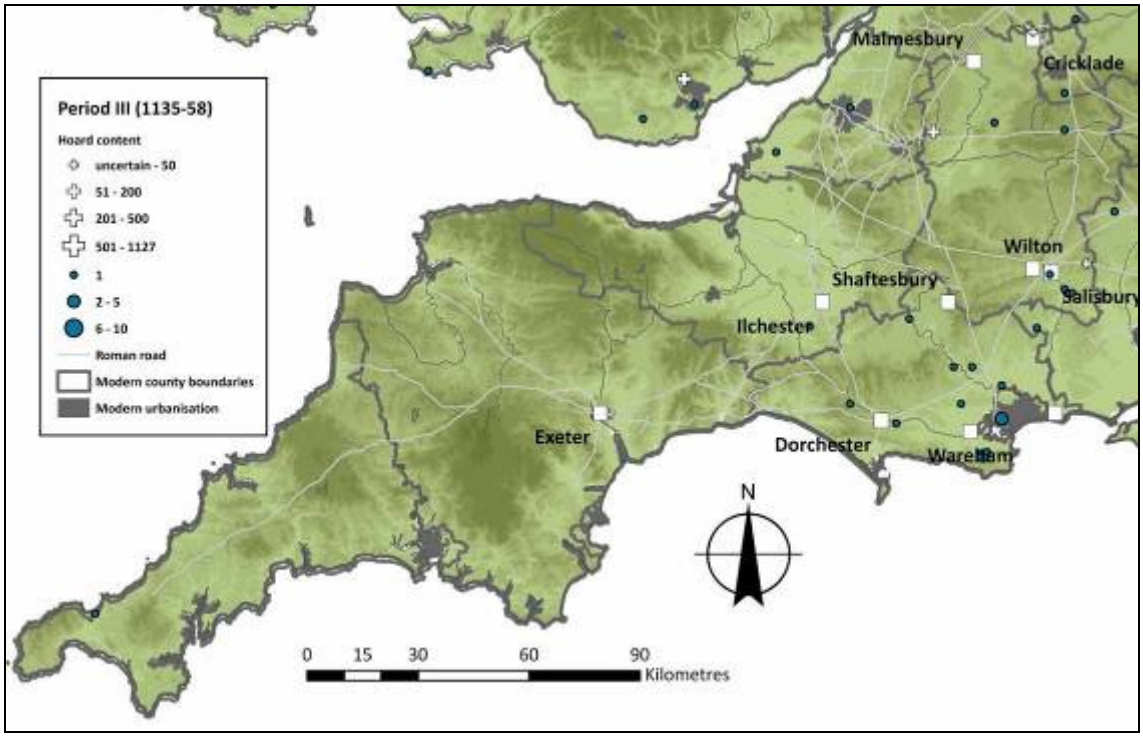
Map 3.43 Period III coins from the South Eastern region.



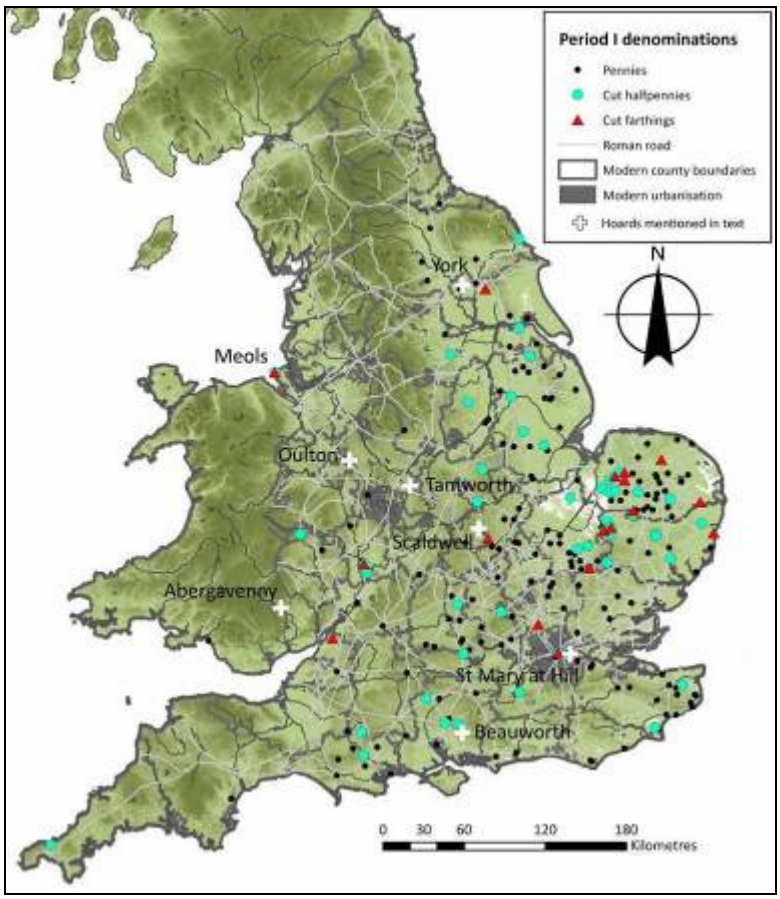
Map 3.44 Period I coins from the South Western region.



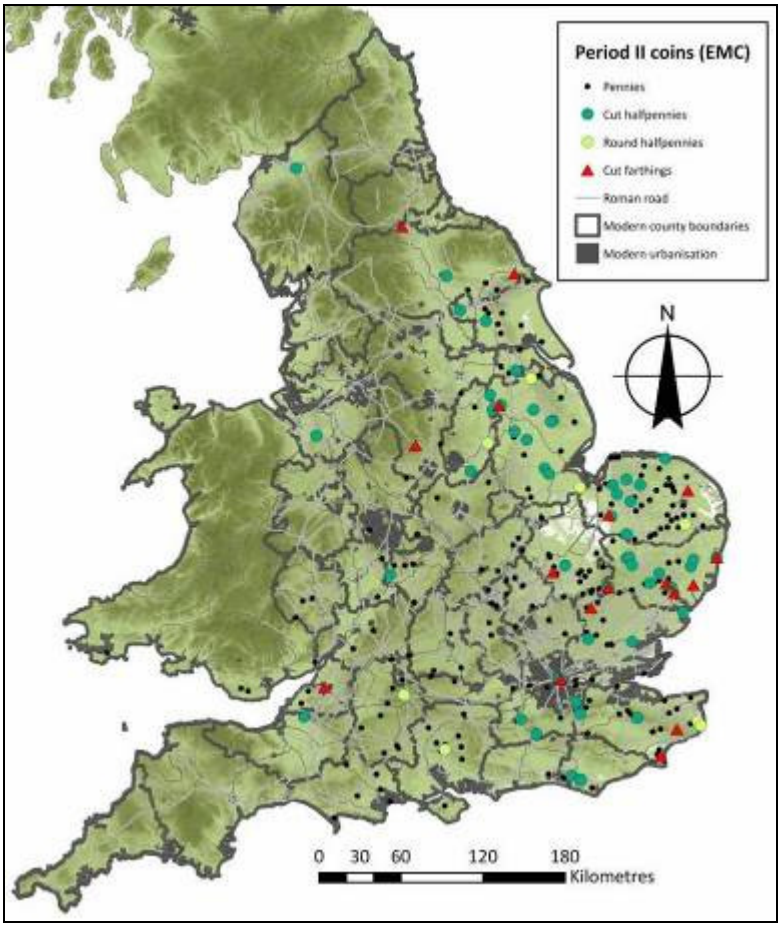
Map 3.45 Period II coins from the South Western region.



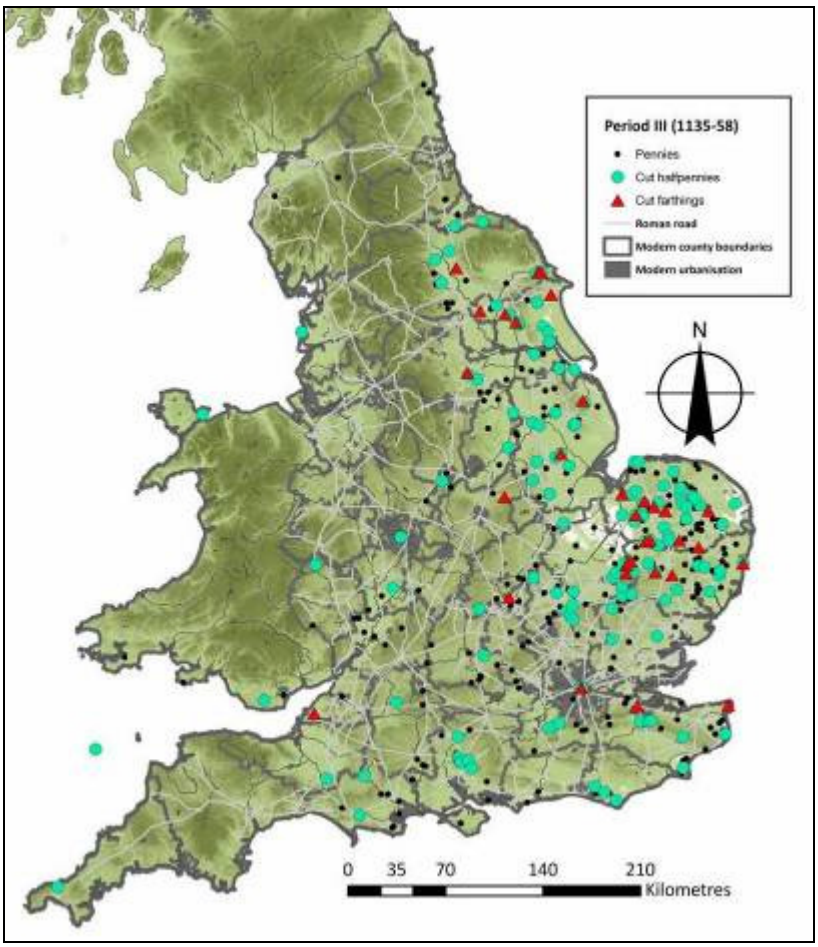
Map 3.46 Period III coins from the South Western region.



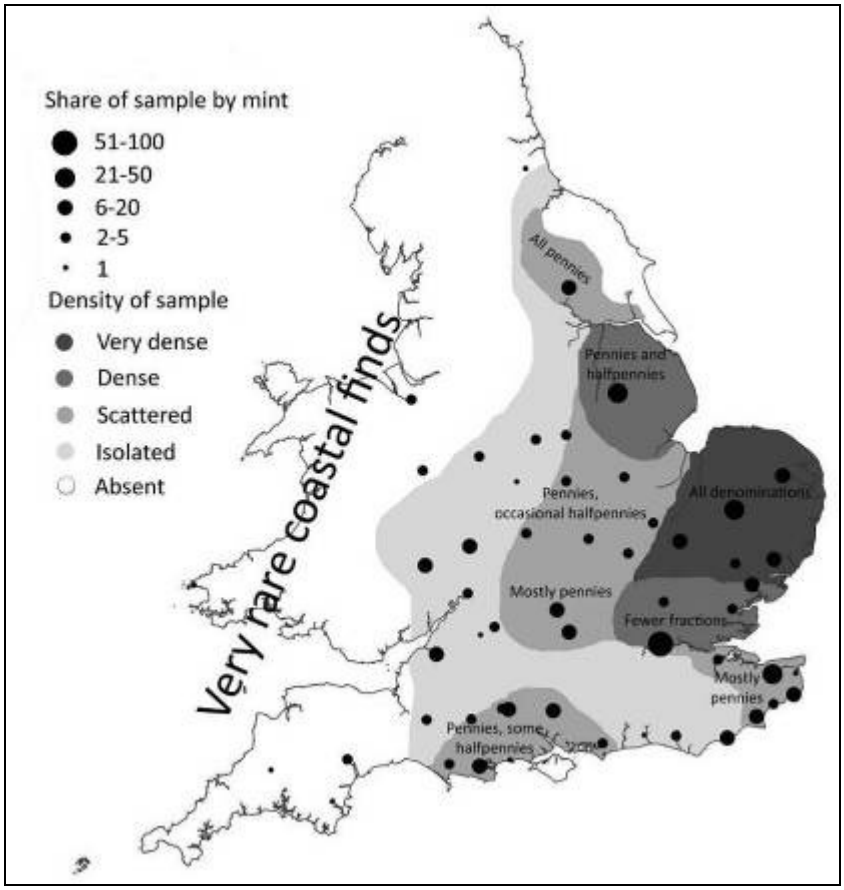
Map 3.47 Denominational distribution of Period I coins.



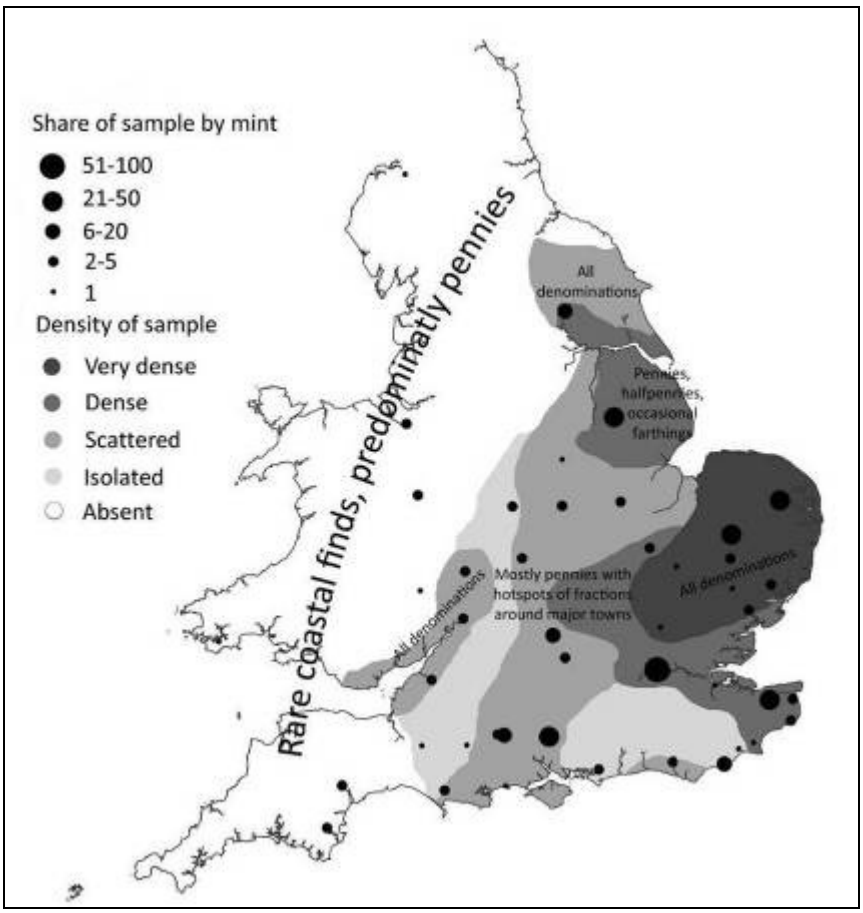
Map 3.48 Denominational distribution of Period II coins.



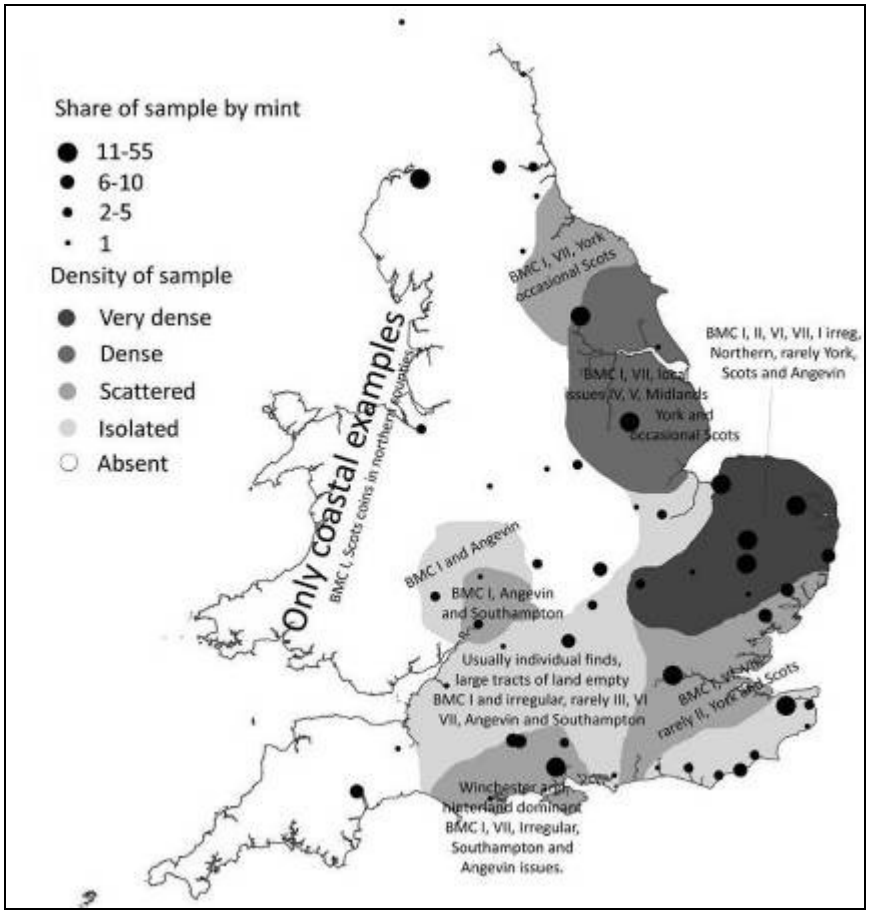
Map 3.49 Denominational distribution of Period III coins.



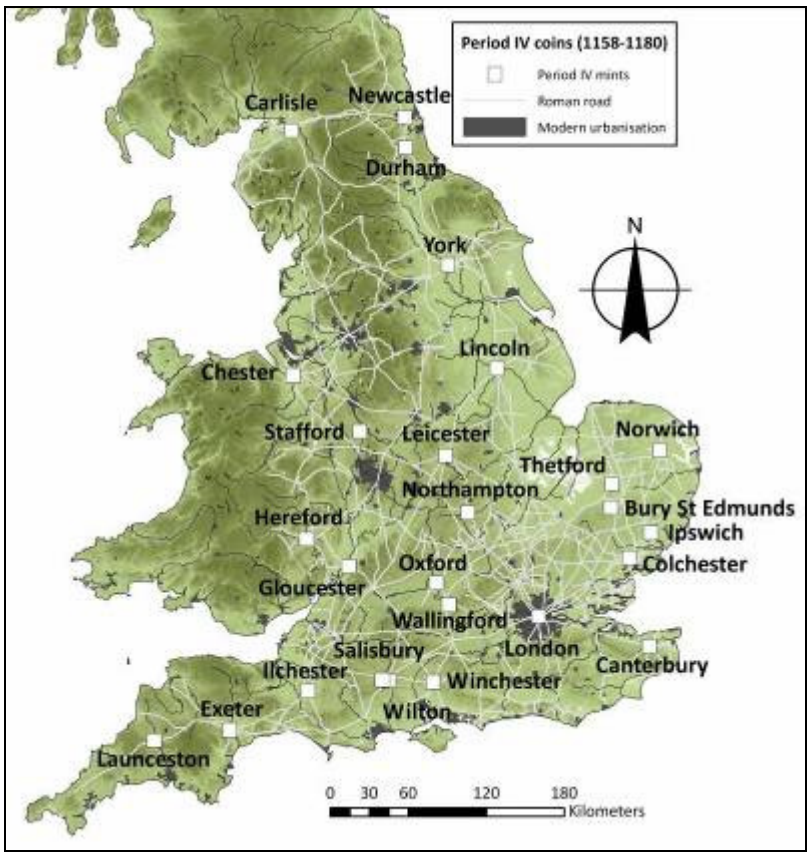
Map 3.50 Period I patterns of coin loss



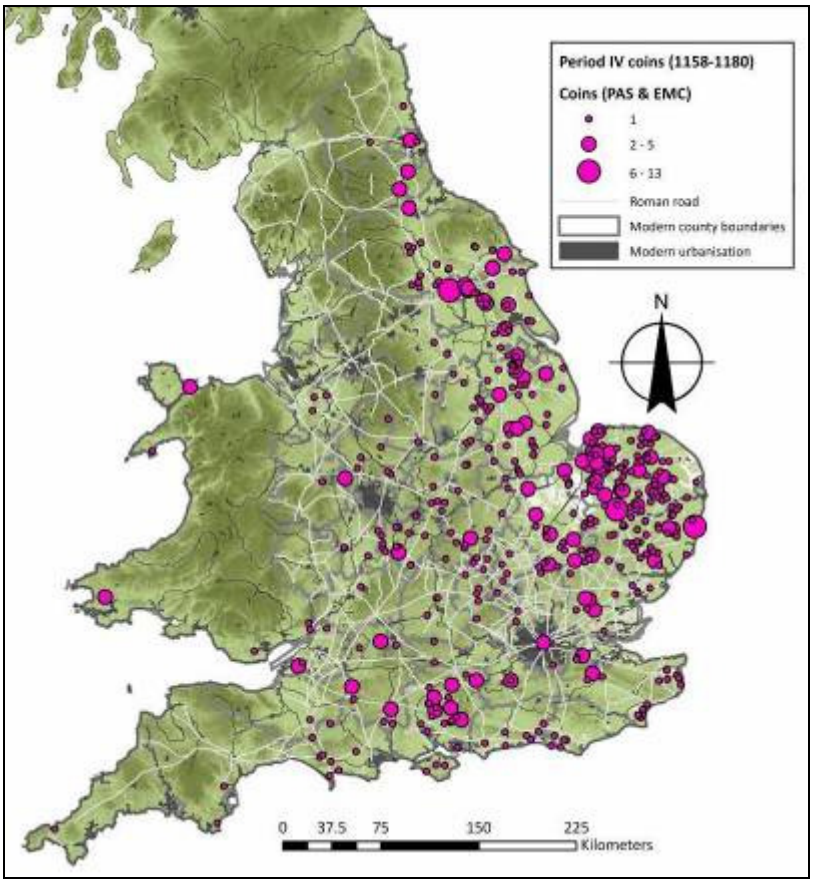
Map 3.51 Period II patterns of coin loss.



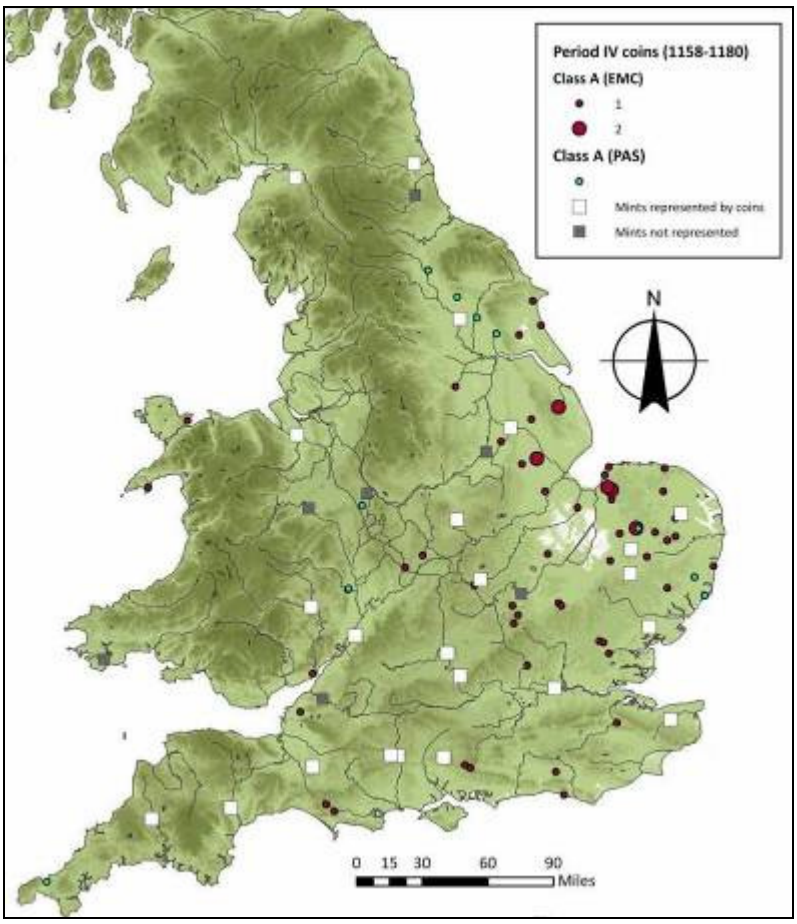
Map 3.52 Period III patterns of coin loss.



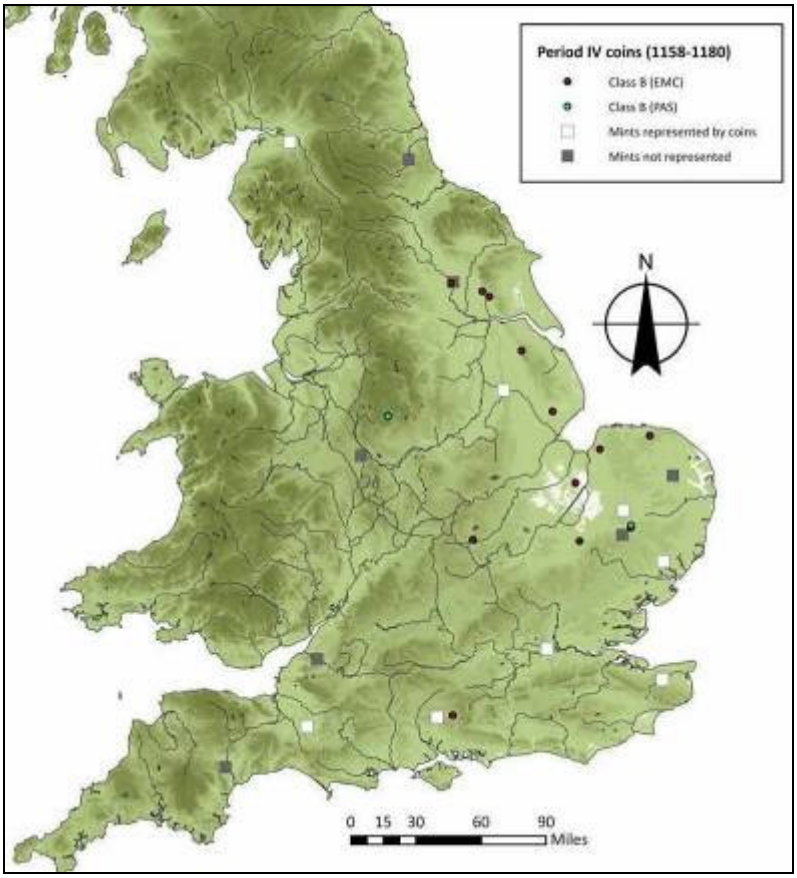
Map 4.1 Mint in the Cross-and-Crosslets coinage (Period IV).



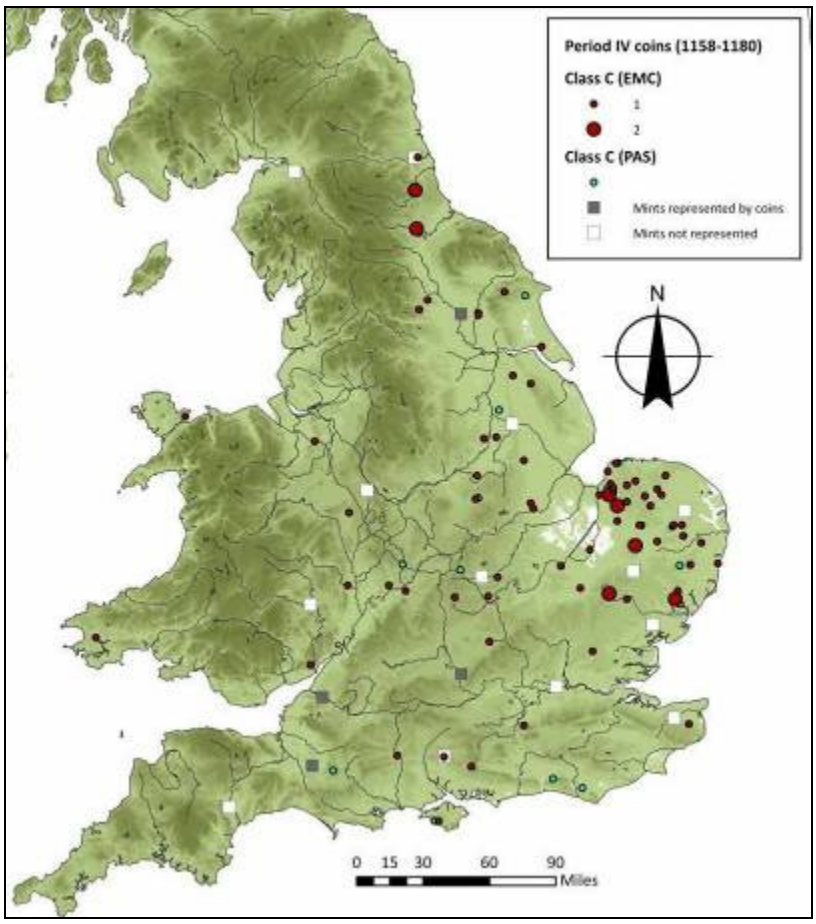
Map 4.2 Distribution of Period IV coins in England and Wales.



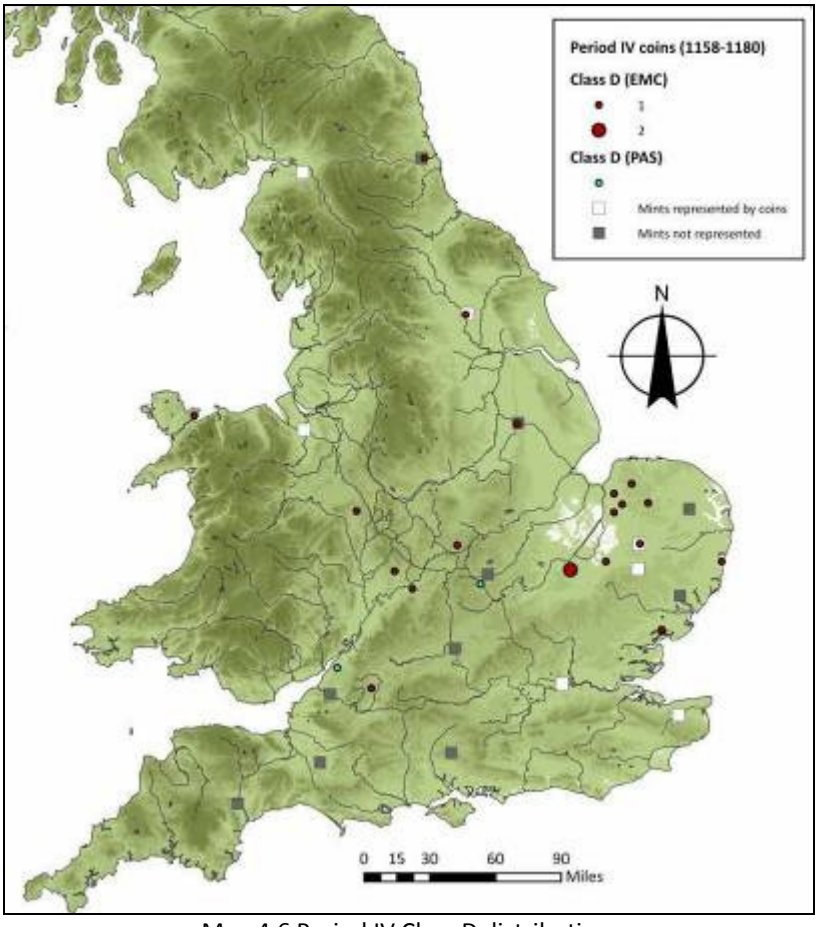
Map 4.3 Period IV Class A distribution.



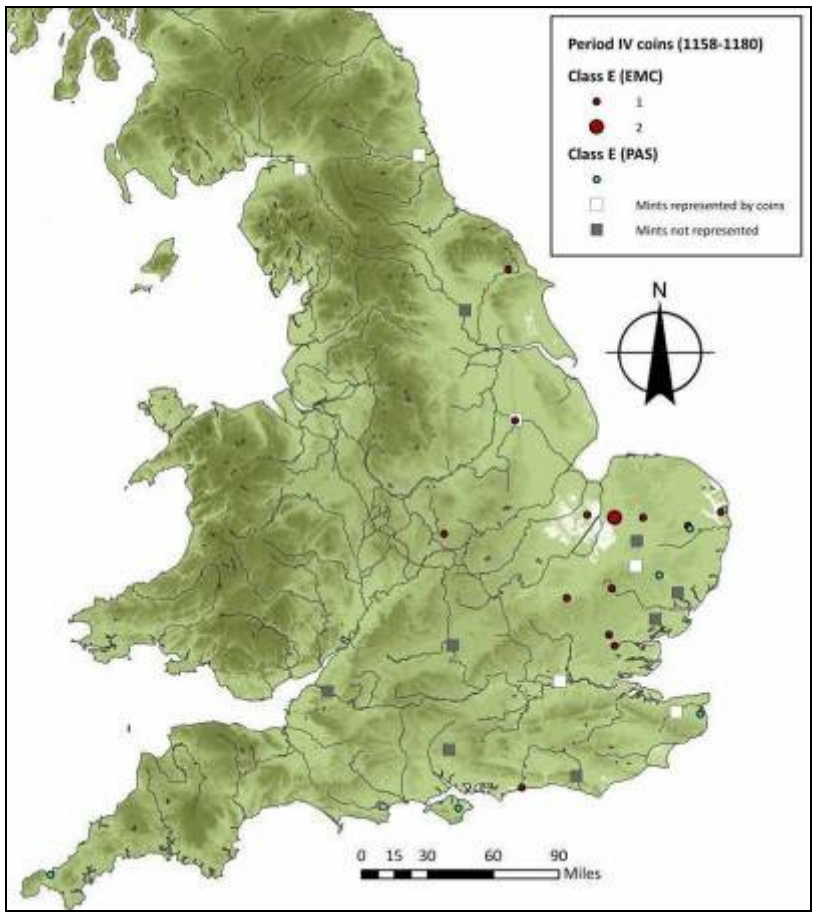
Map 4.4 Period IV Class B distribution.



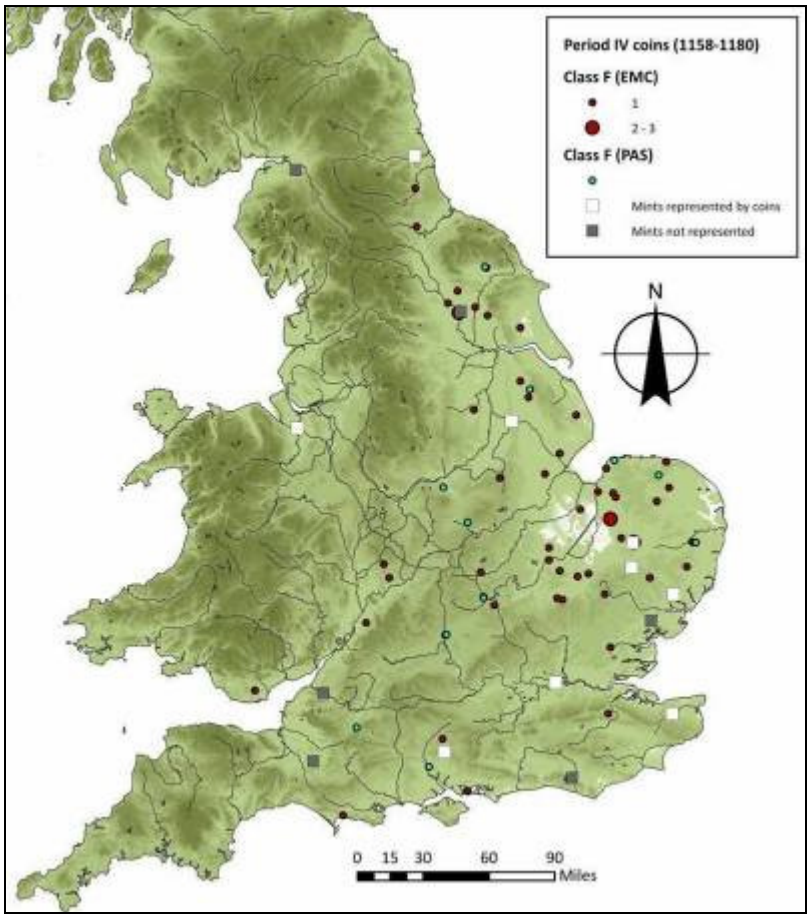
Map 4.5 Period IV Class C distribution.



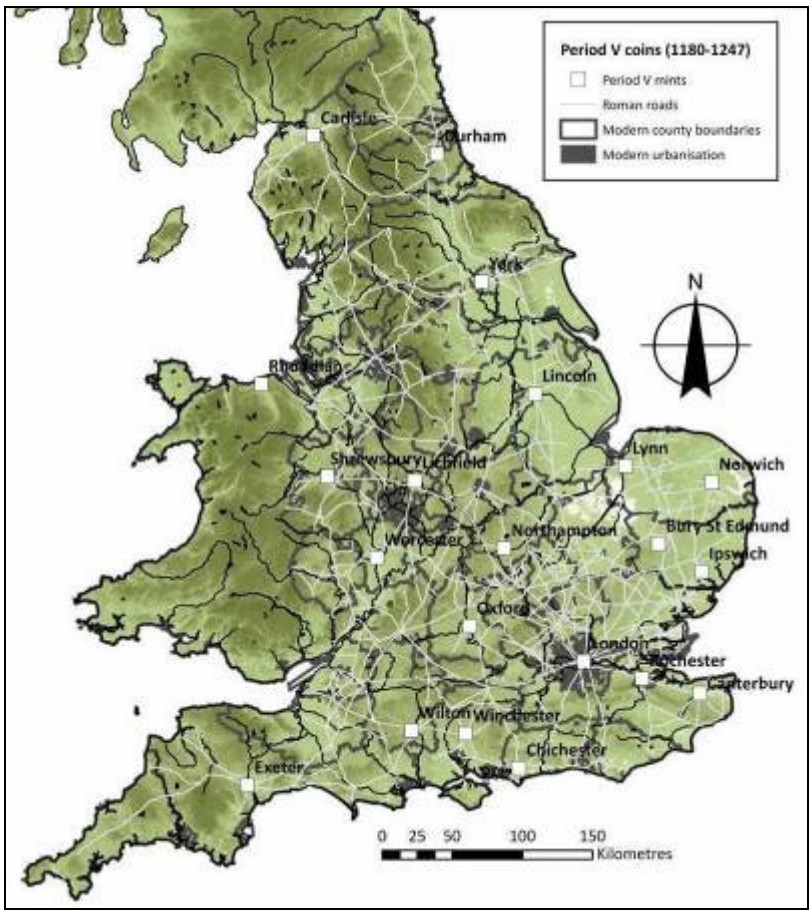
Map 4.6 Period IV Class D distribution.



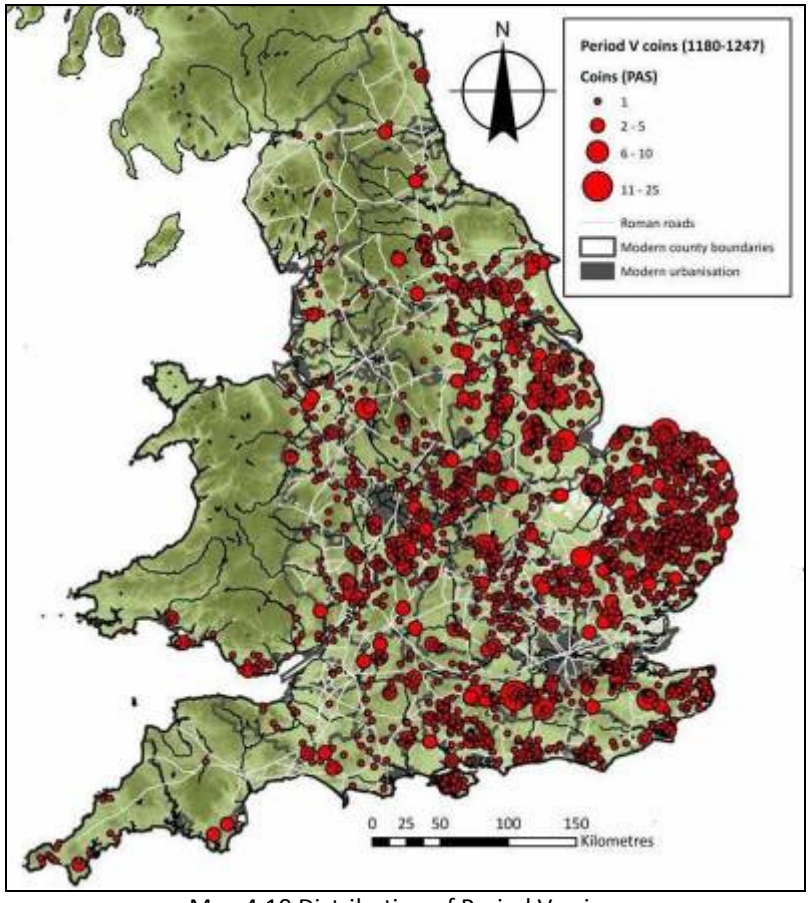
Map 4.7 Period IV Class E distribution.



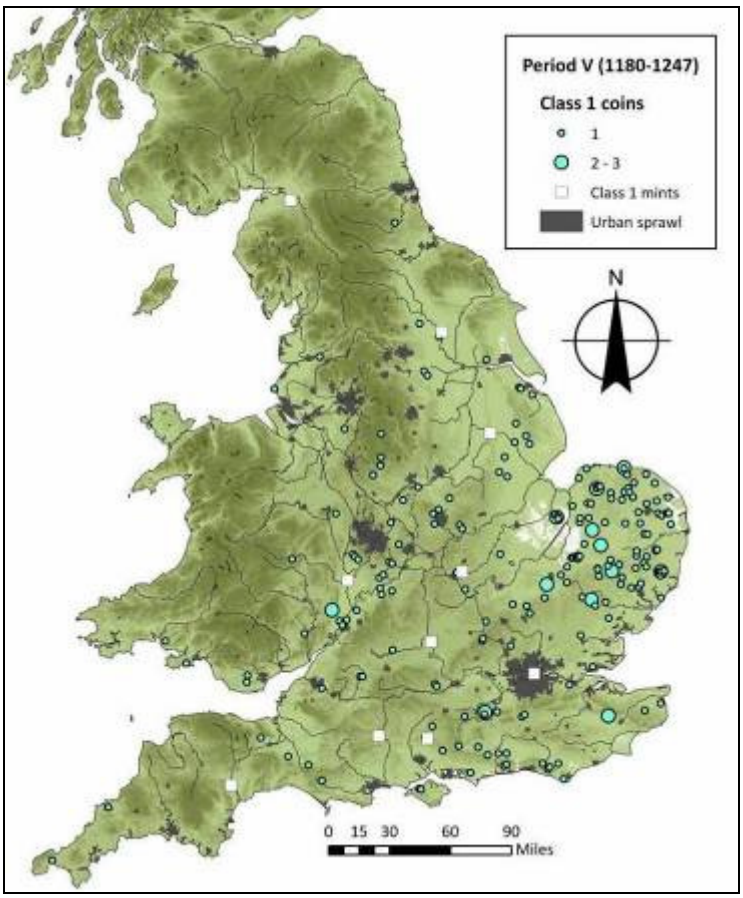
Map 4.8 Period IV Class F distribution.



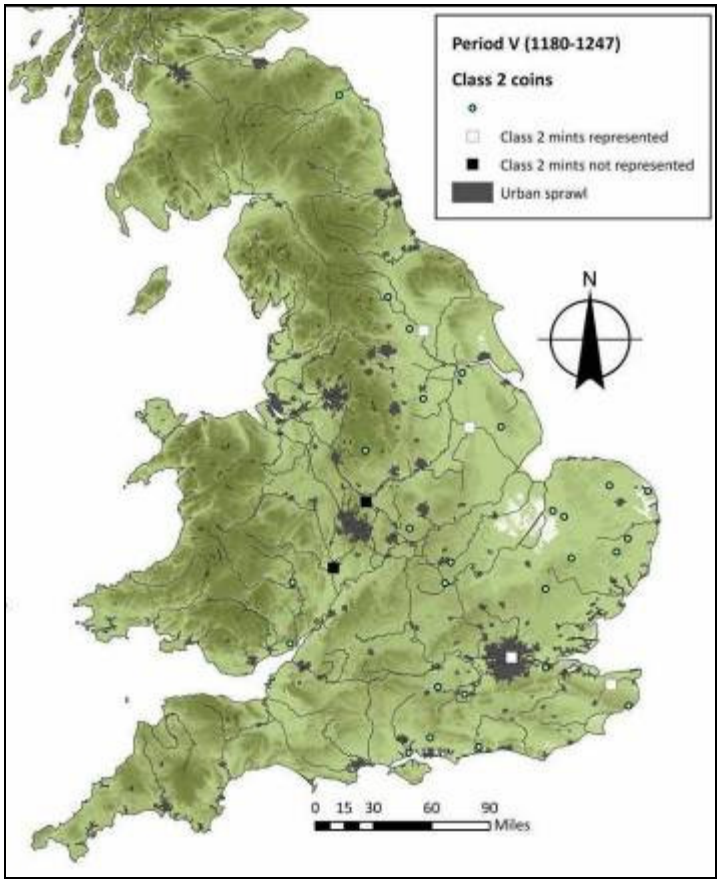
Map 4.9 Mints of the Short Cross period (PV).



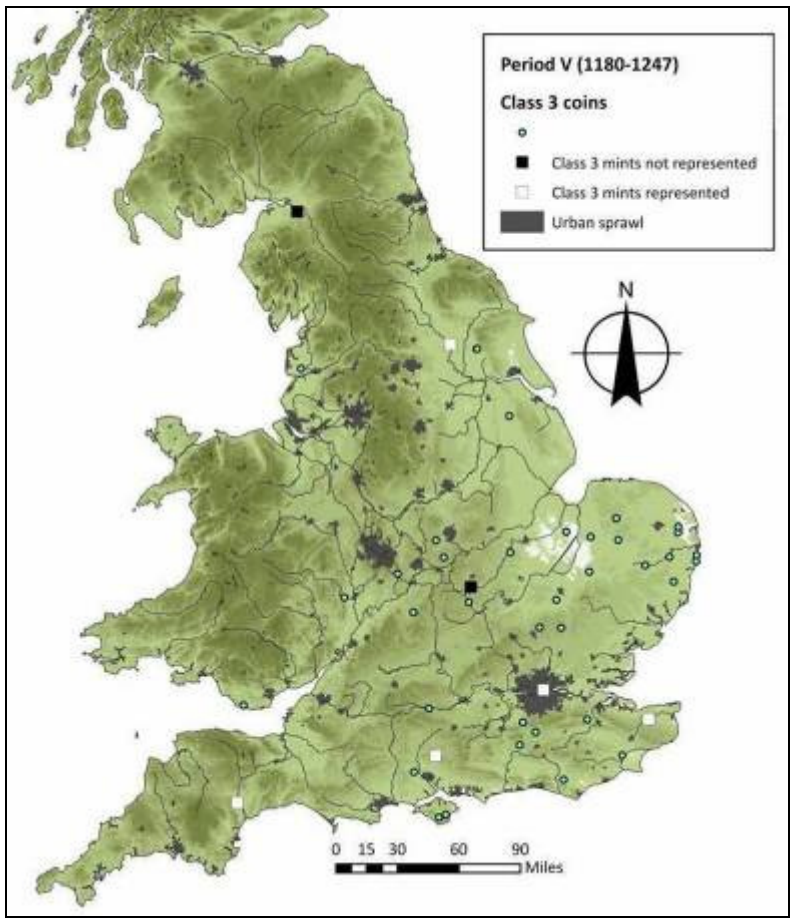
Map 4.10 Distribution of Period V coins.



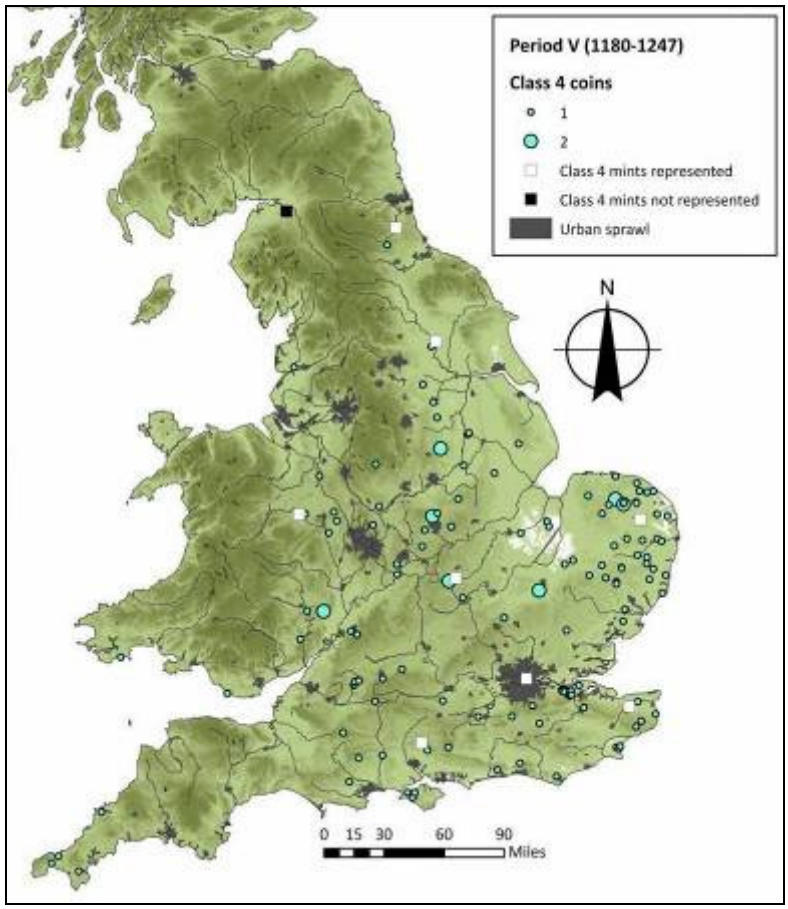
Map 4.11 Period V Class 1 distribution.



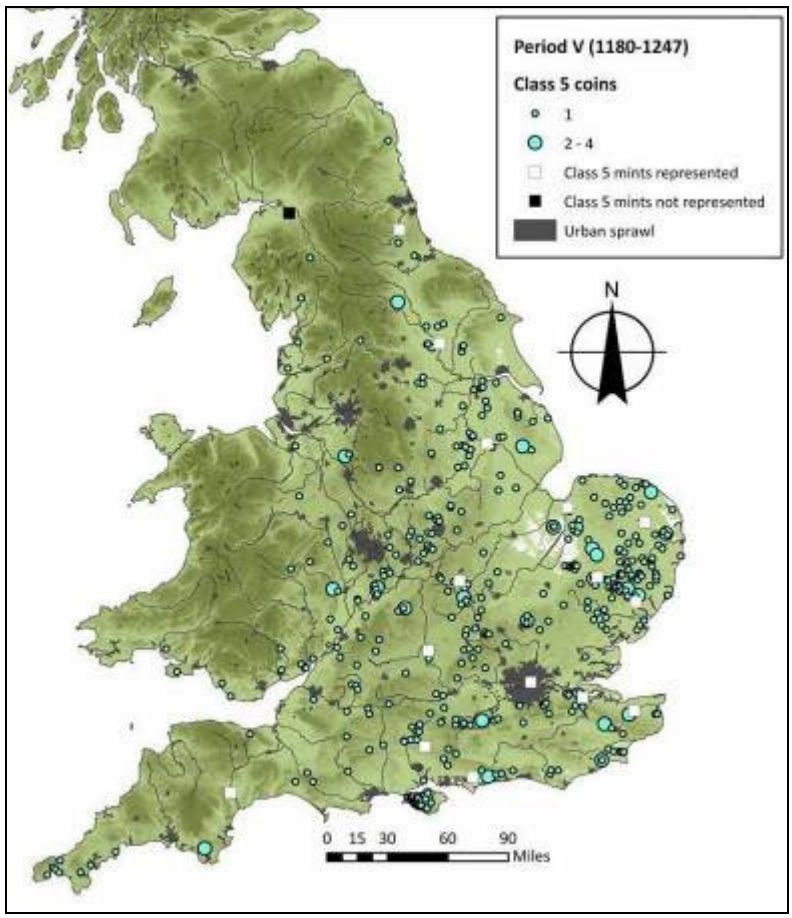
Map 4.12 Period V Class 2 distribution.



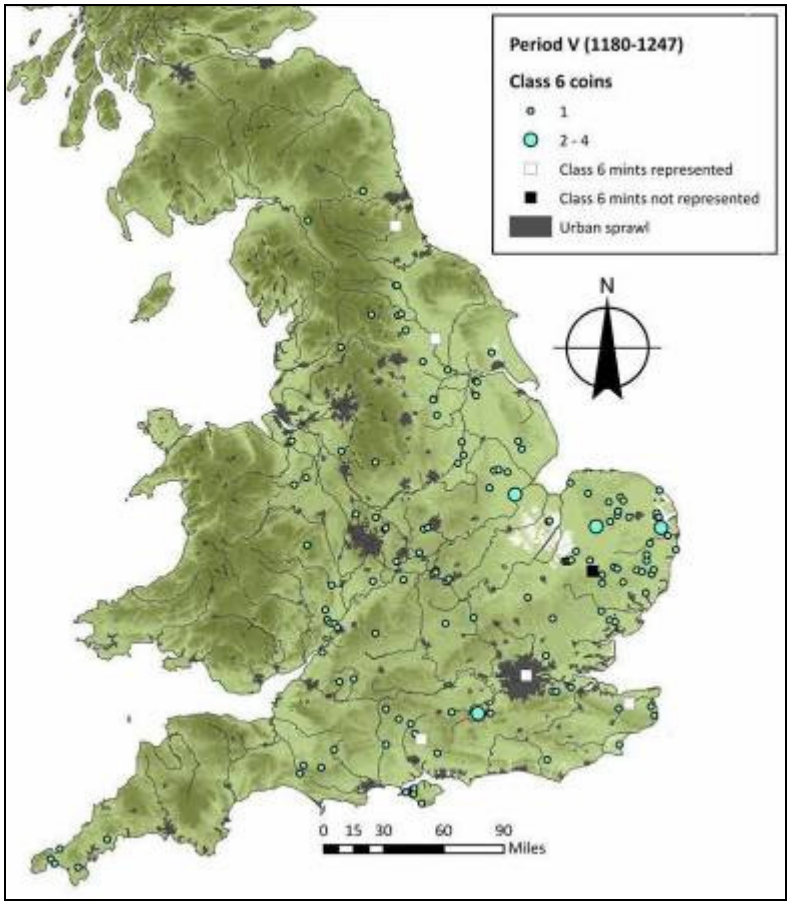
Map 4.13 Period V Class 3 distribution.



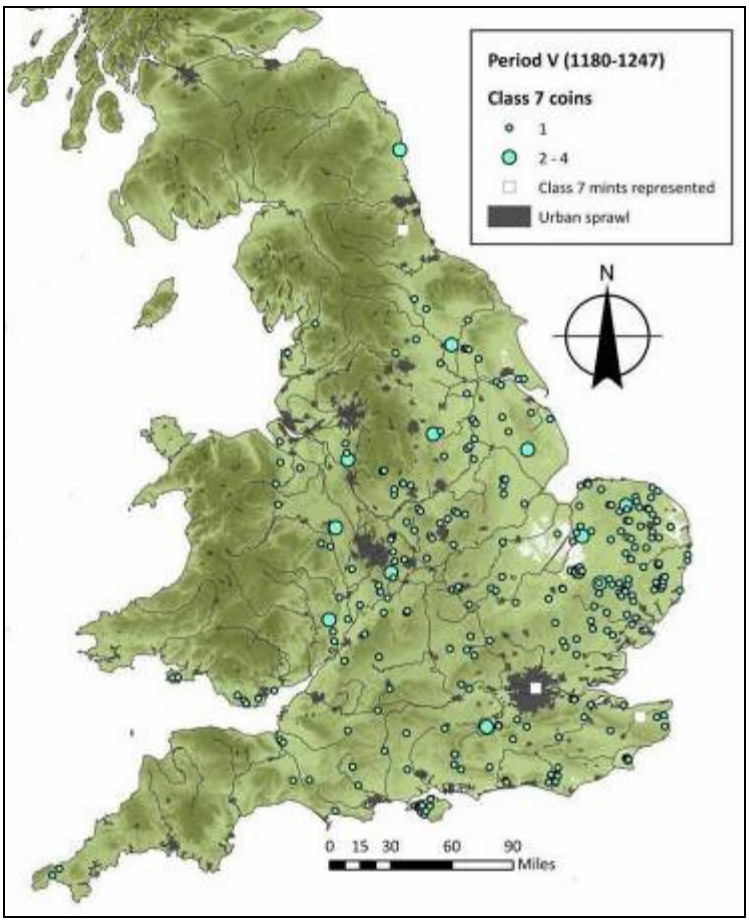
Map 4.14 Period V Class 4 distribution.



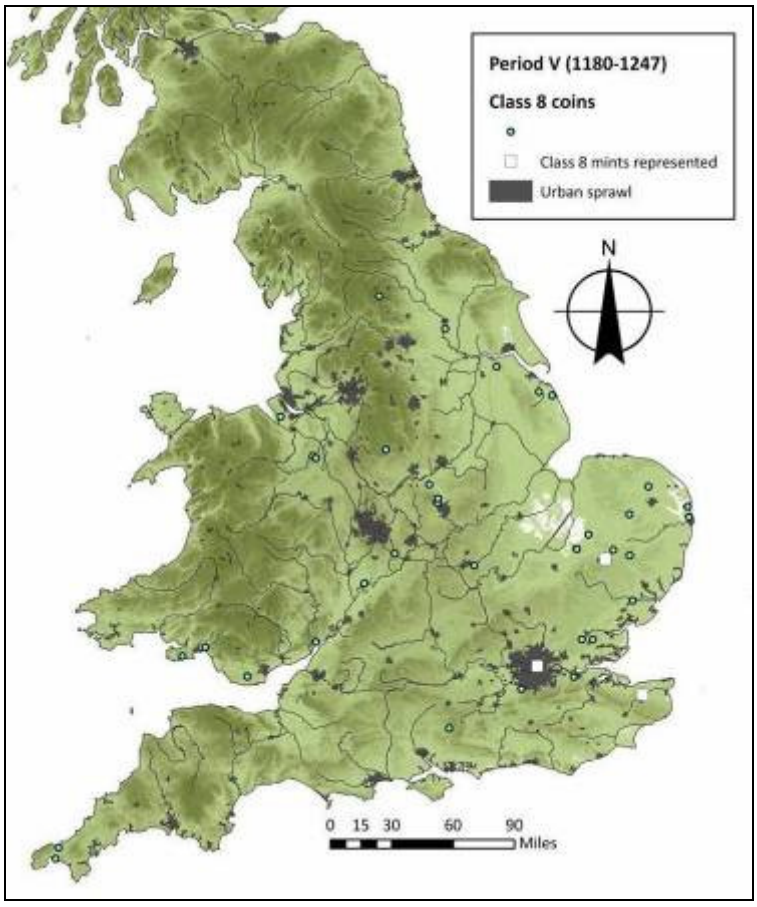
Map 4.15 Period V Class 5 distribution.



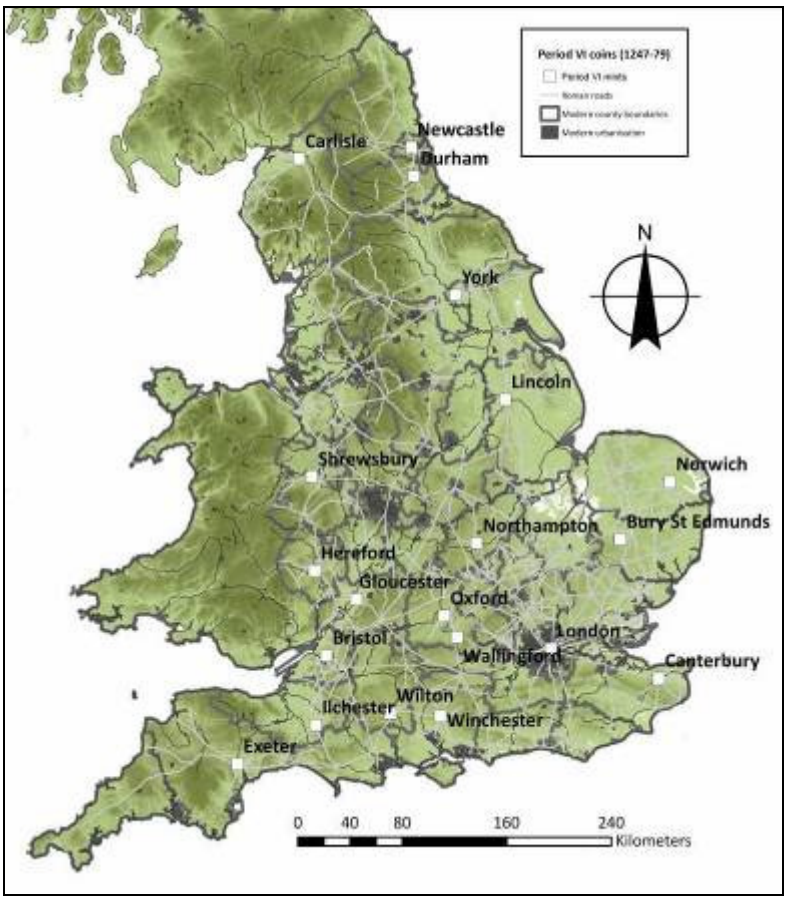
Map 4.16 Period V Class 6 distribution.



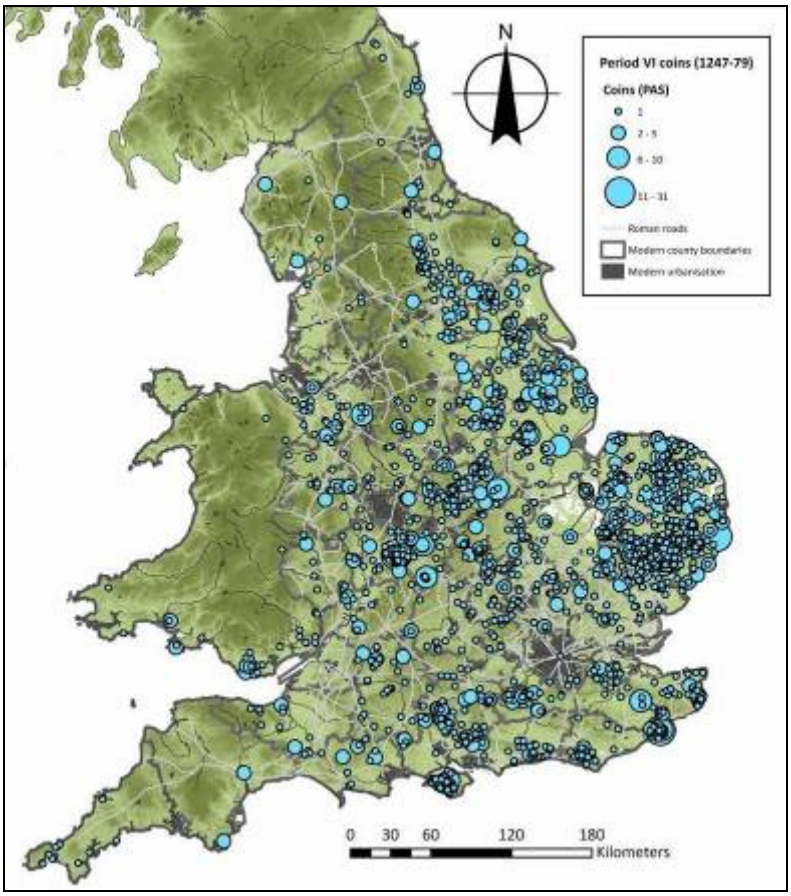
Map 4.17 Period V Class 7 distribution.



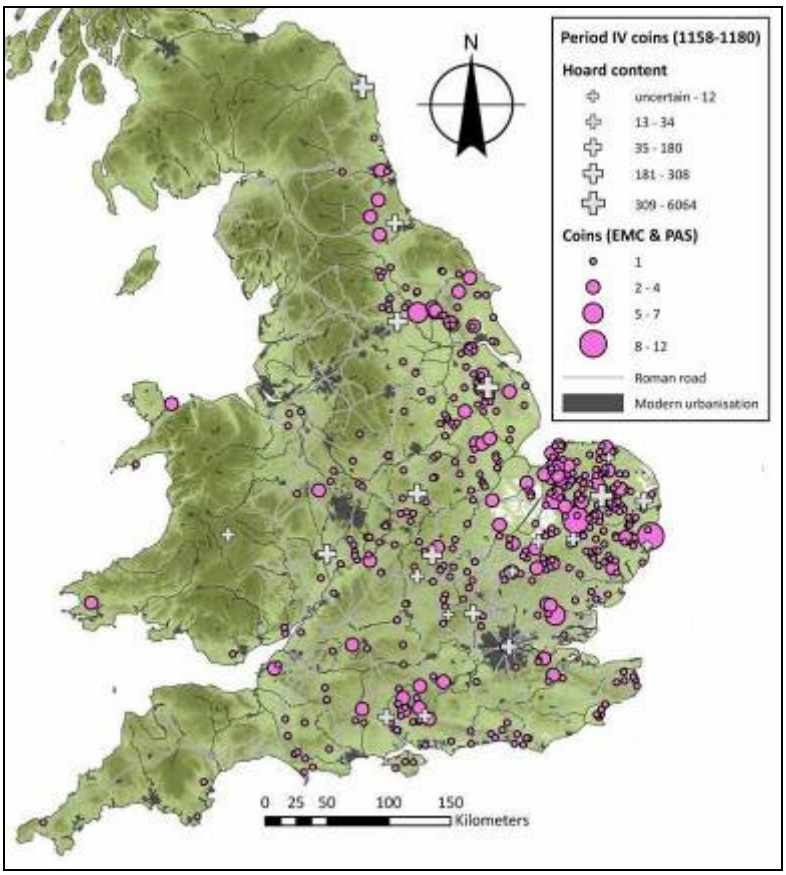
Map 4.18 Period V Class 8 distribution.



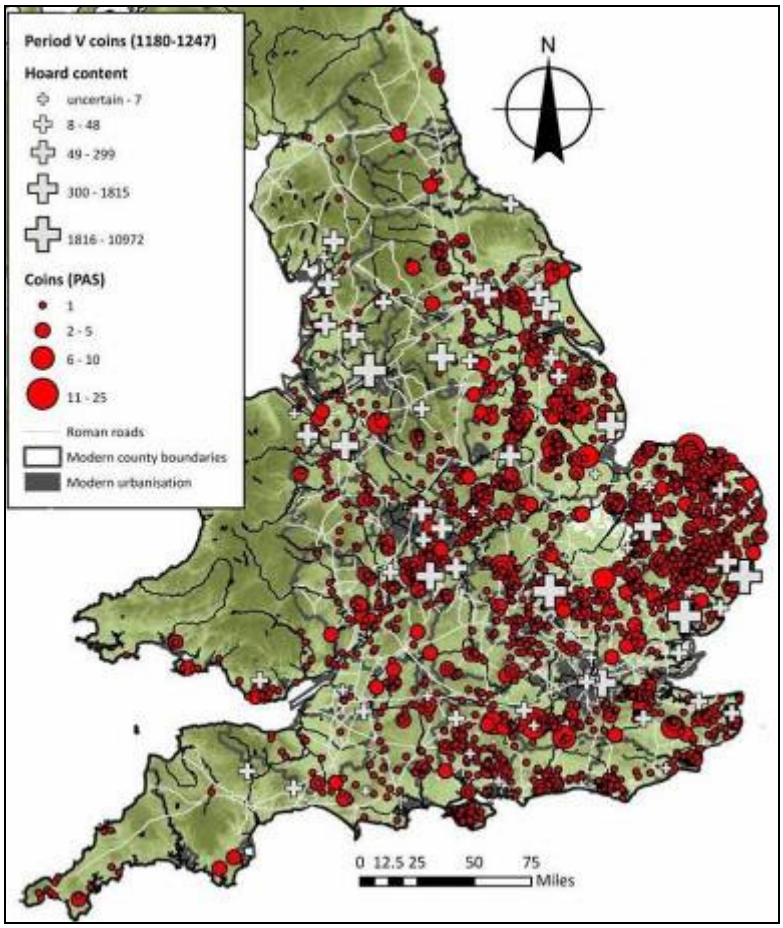
Map 4.19 Period VI mints.



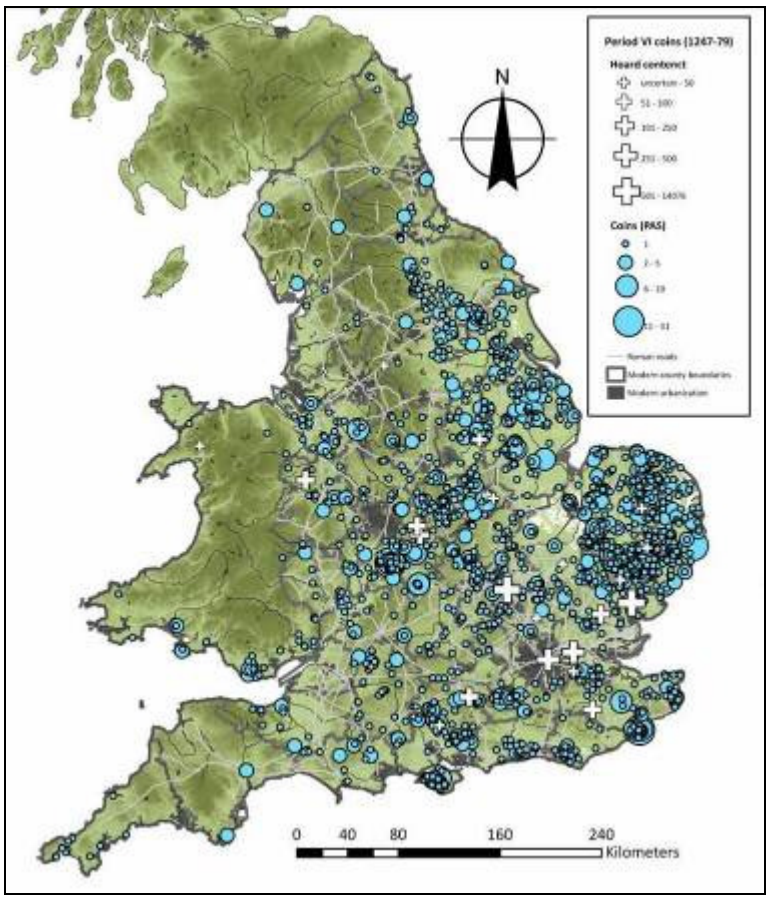
Map 4.20 Distribution of Period VI coins in England and Wales.



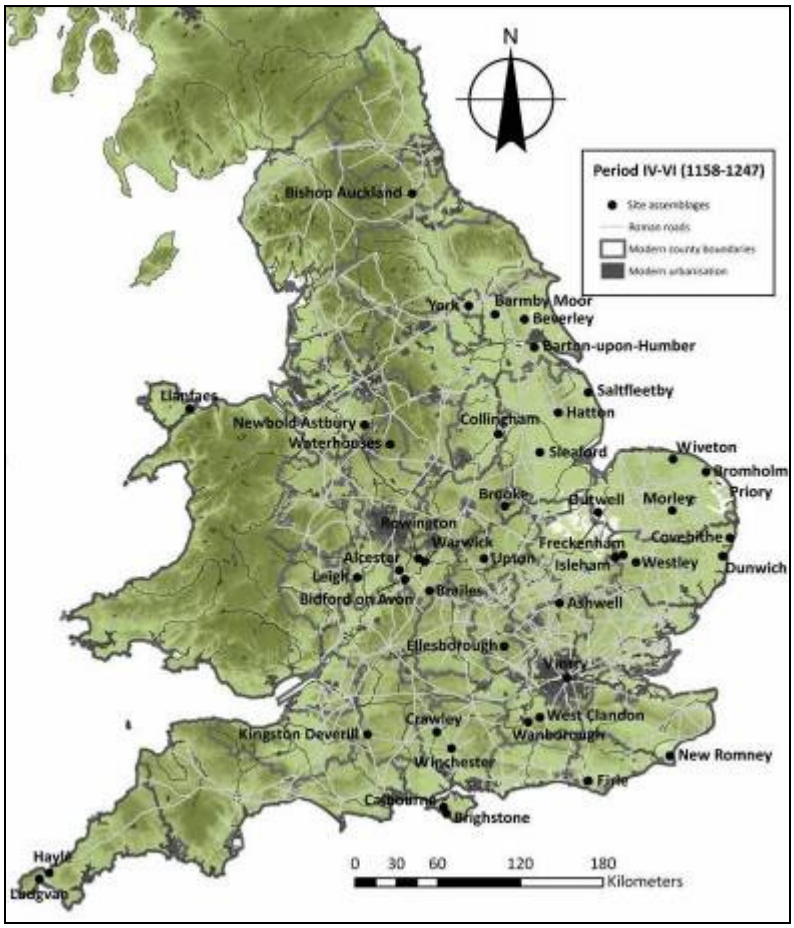
Map 4.21 Period IV hoard distribution.



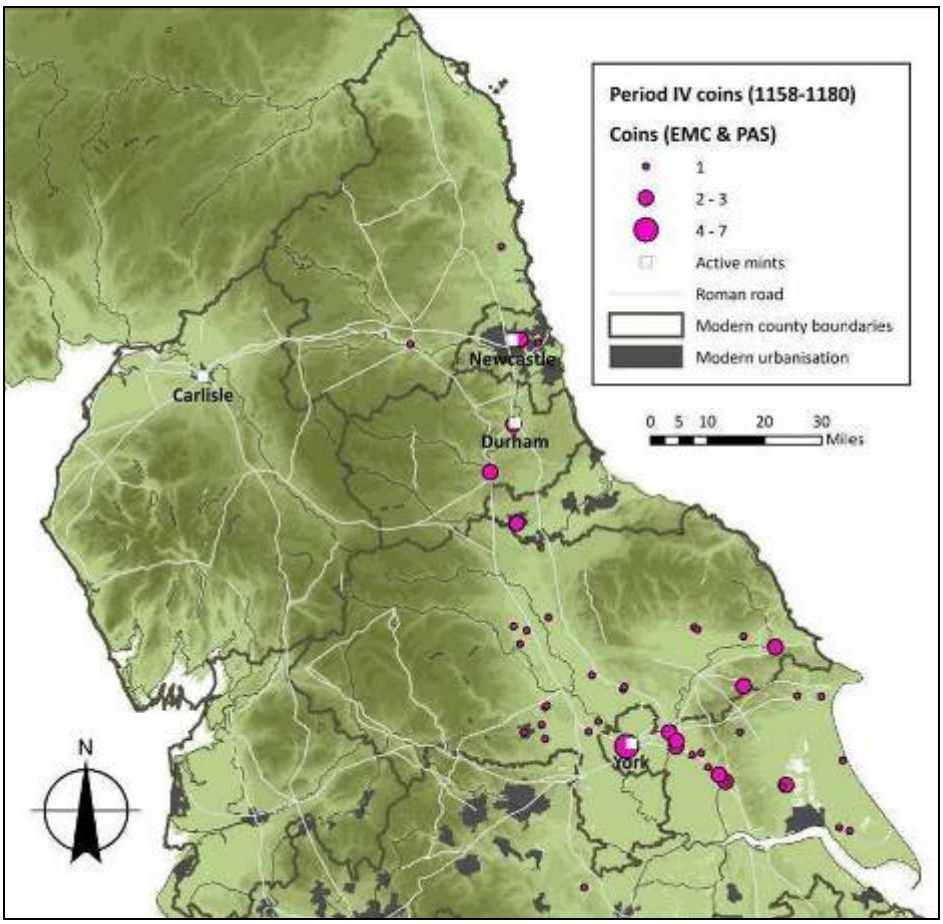
Map 4.22 Period V hoard distribution.



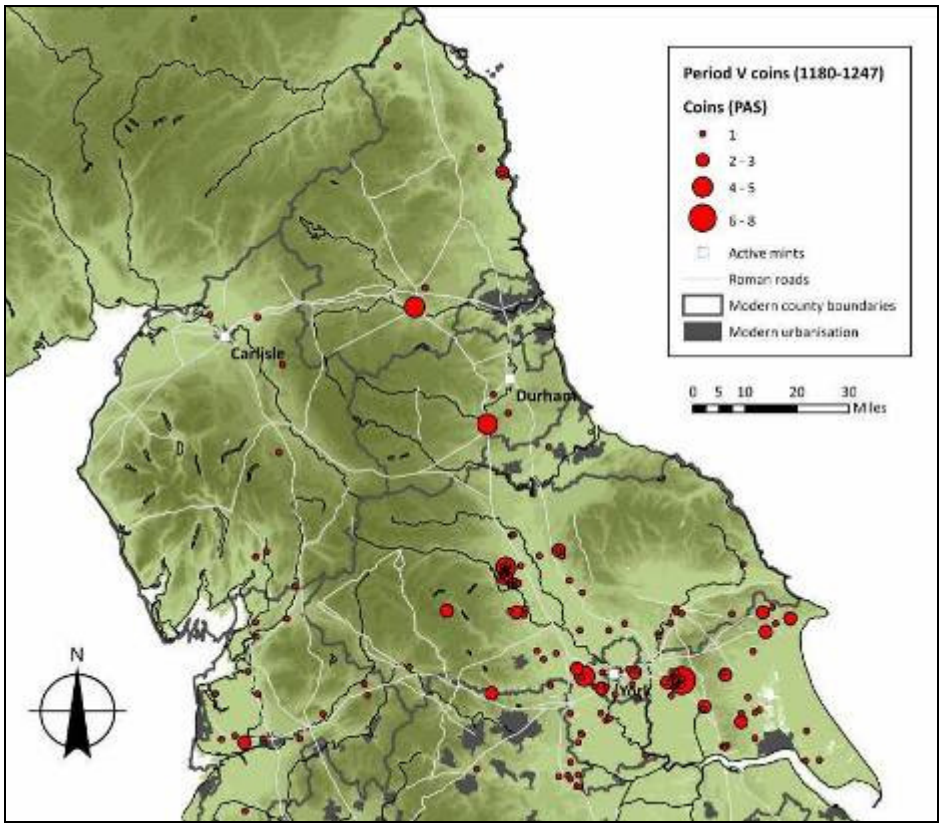
Map 4.23 Period VI hoard distribution.



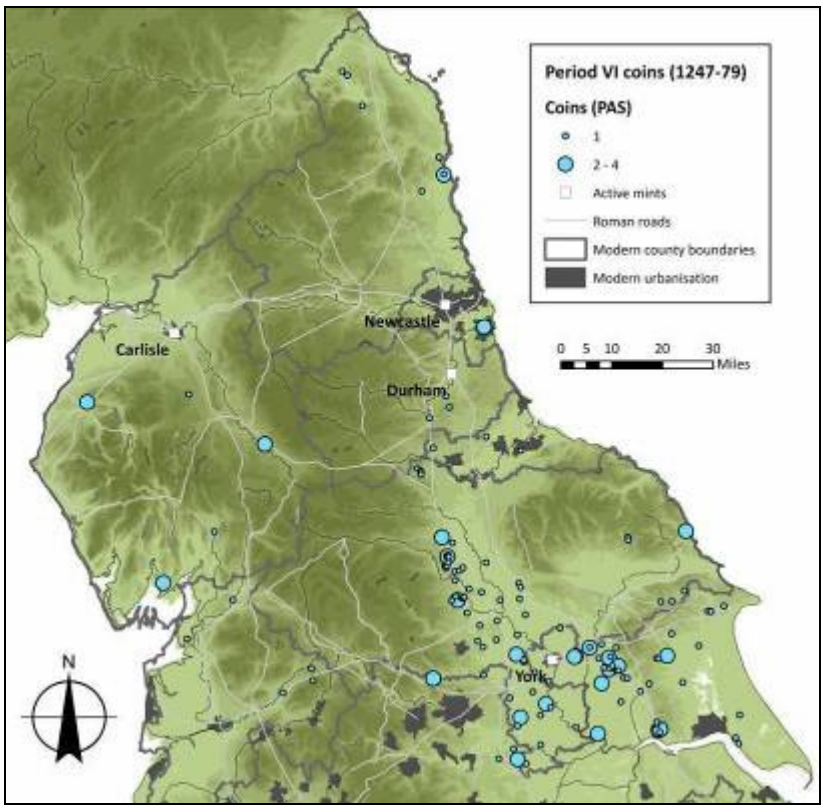
Map 4.24 Key sites mentioned in the analysis.



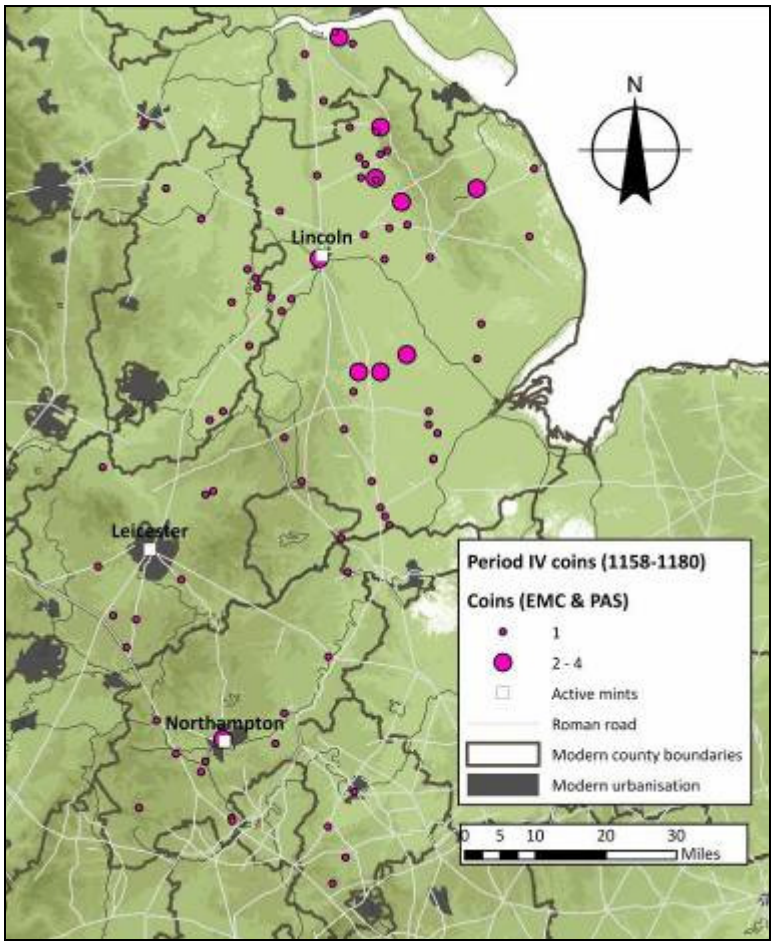
Map 4.25 Northern England Period IV distribution.



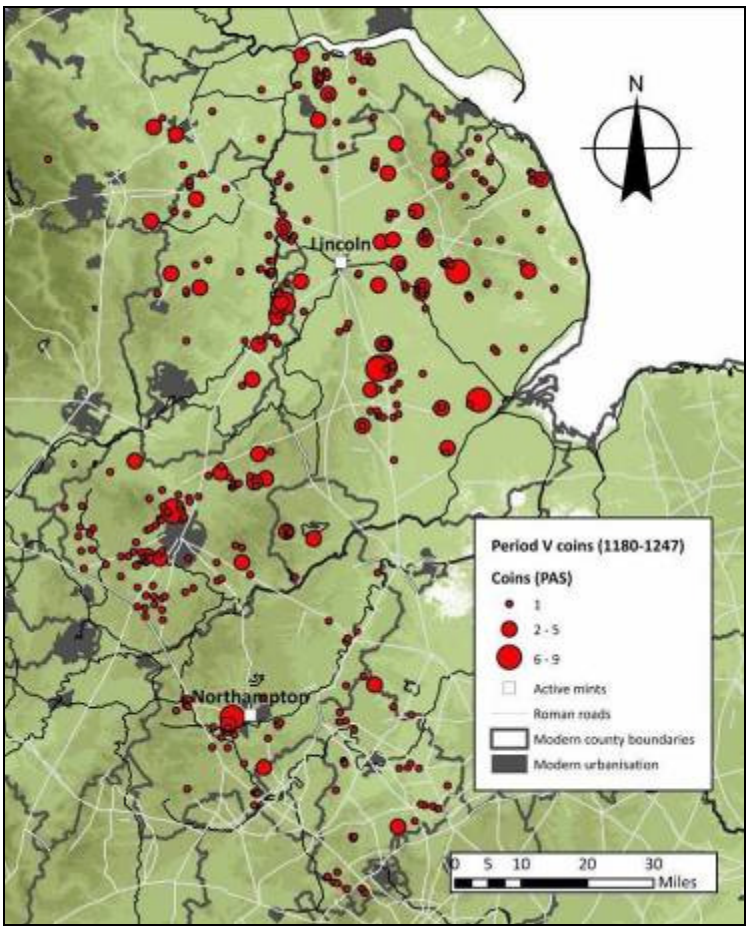
Map 4.26 Northern England Period V distribution.



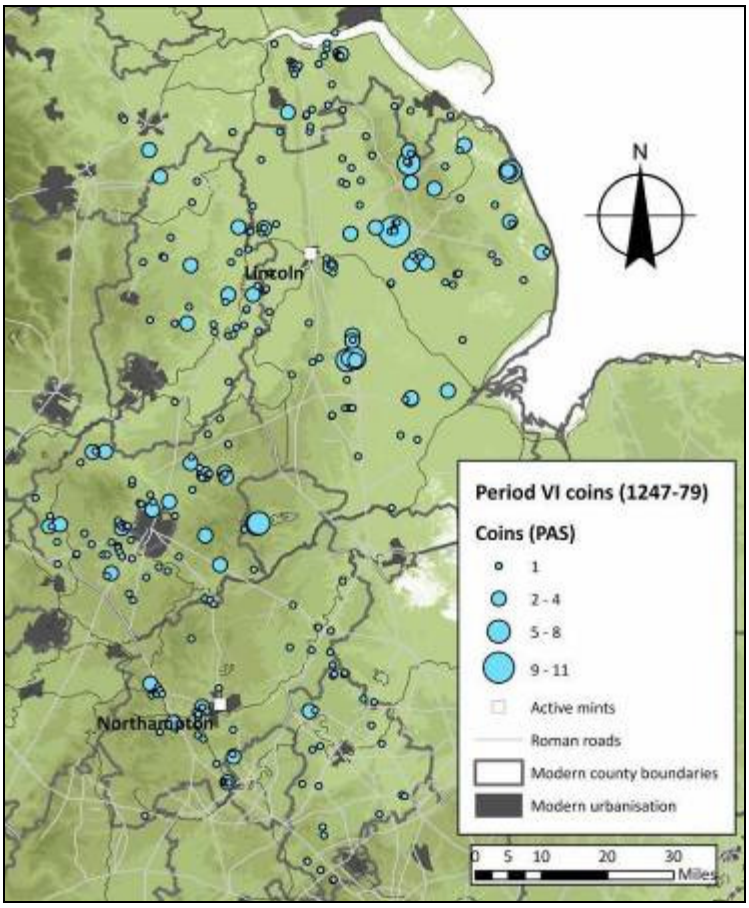
Map 4.27 Northern England Period VI distribution.



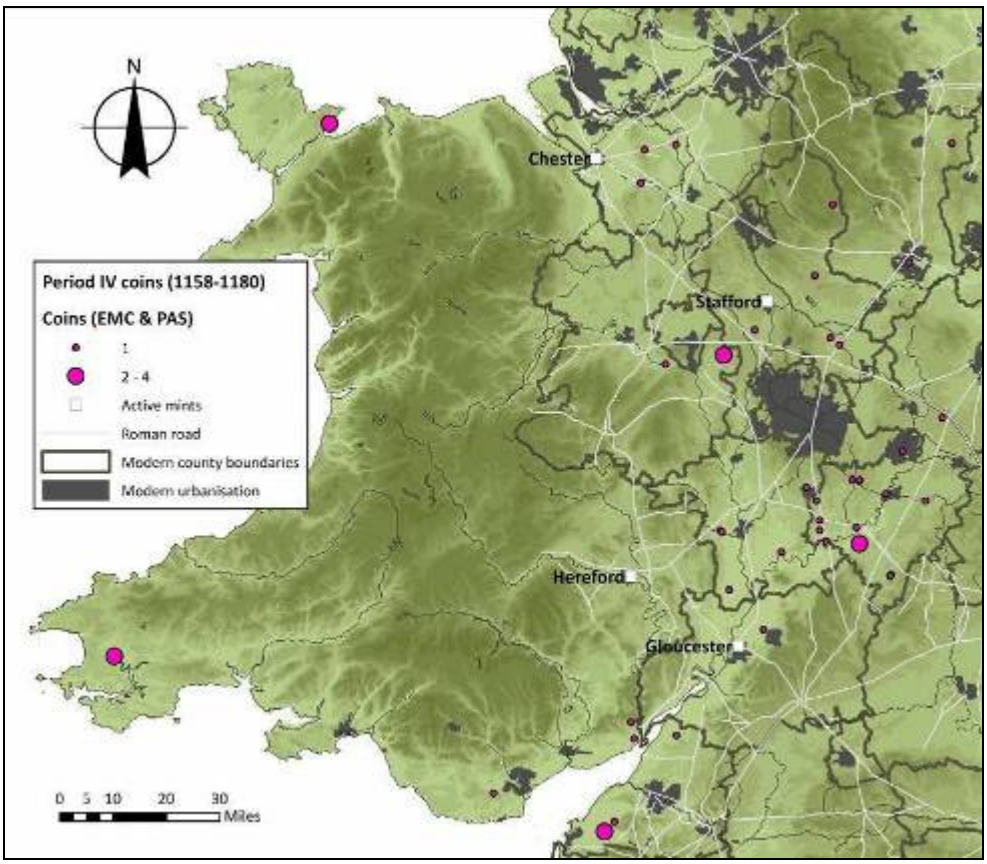
Map 4.28 East Central England Period IV distribution.



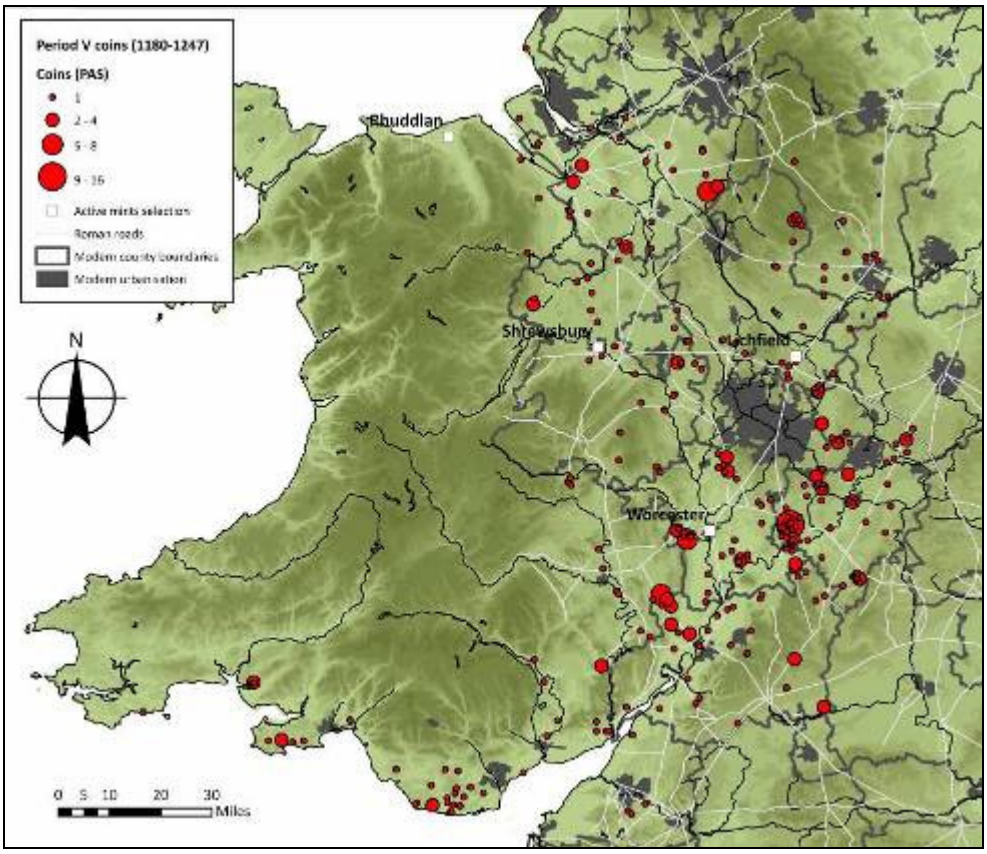
Map 4.29 East Central England Period V distribution.



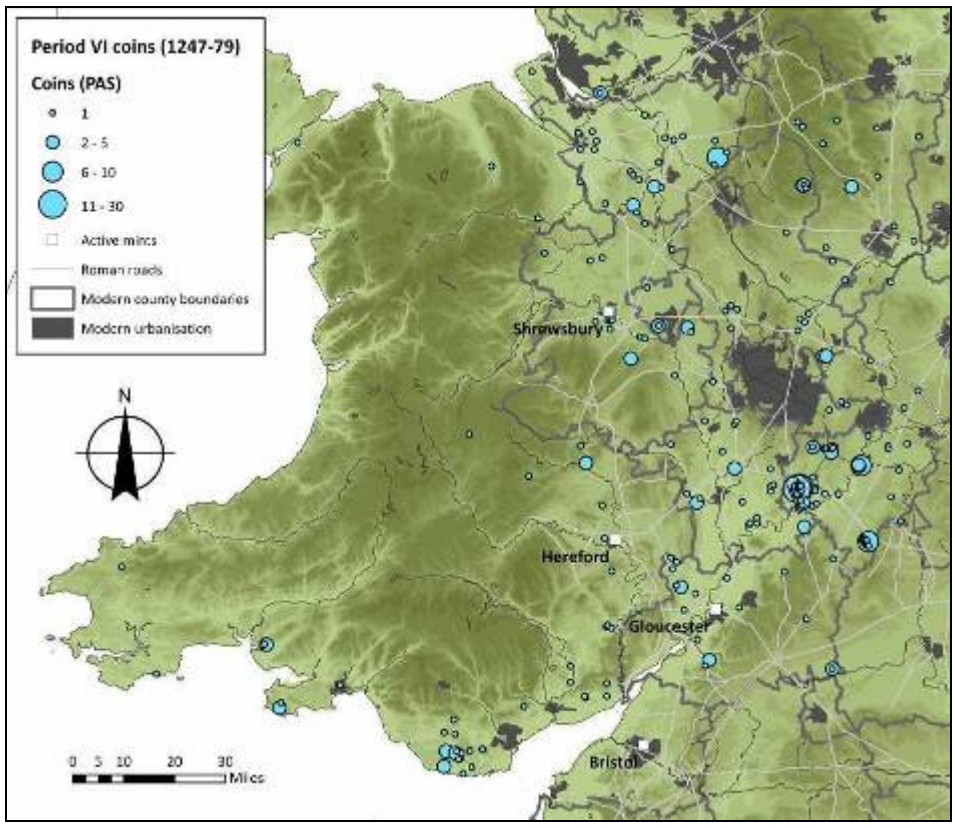
Map 4.30 East Central England Period VI distribution.



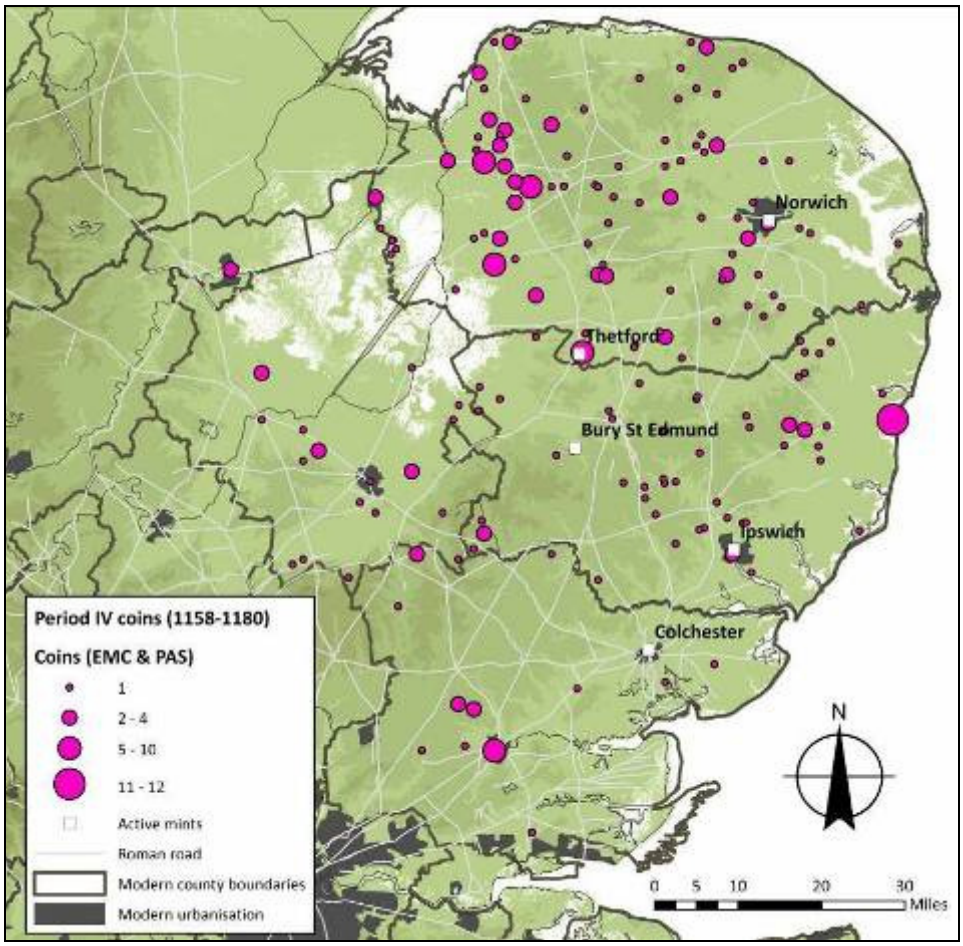
Map 4.31 West Central England and Wales Period IV distribution.



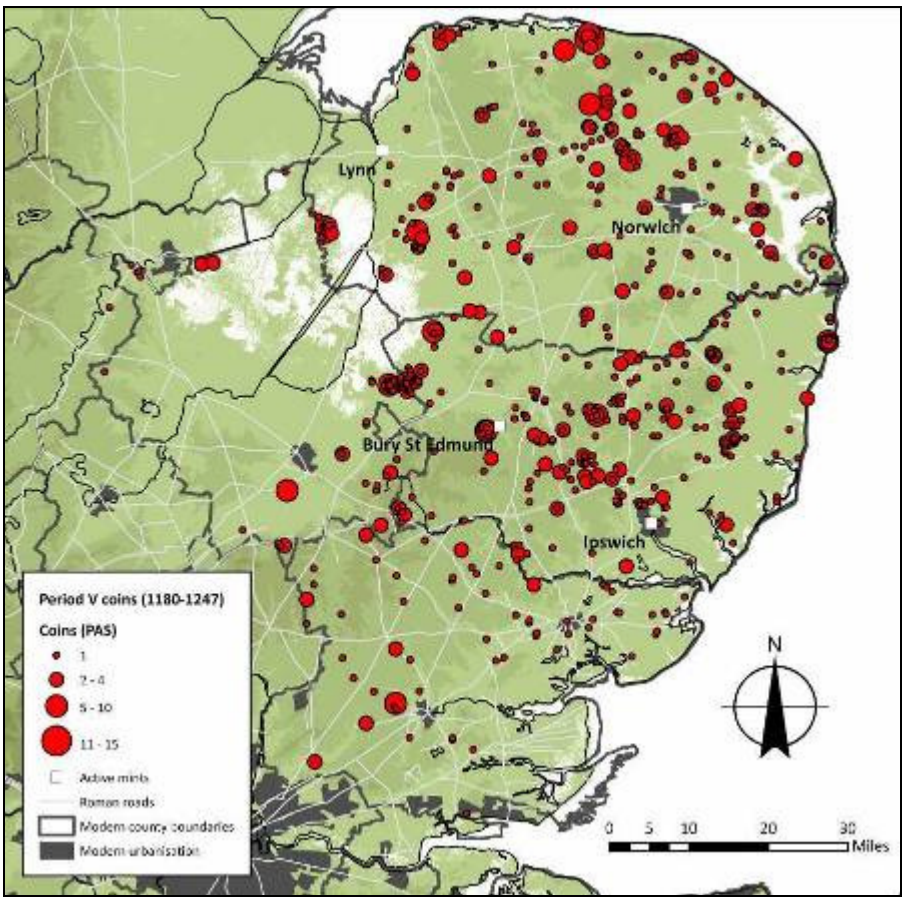
Map 4.32 West Central England and Wales Period V distribution.



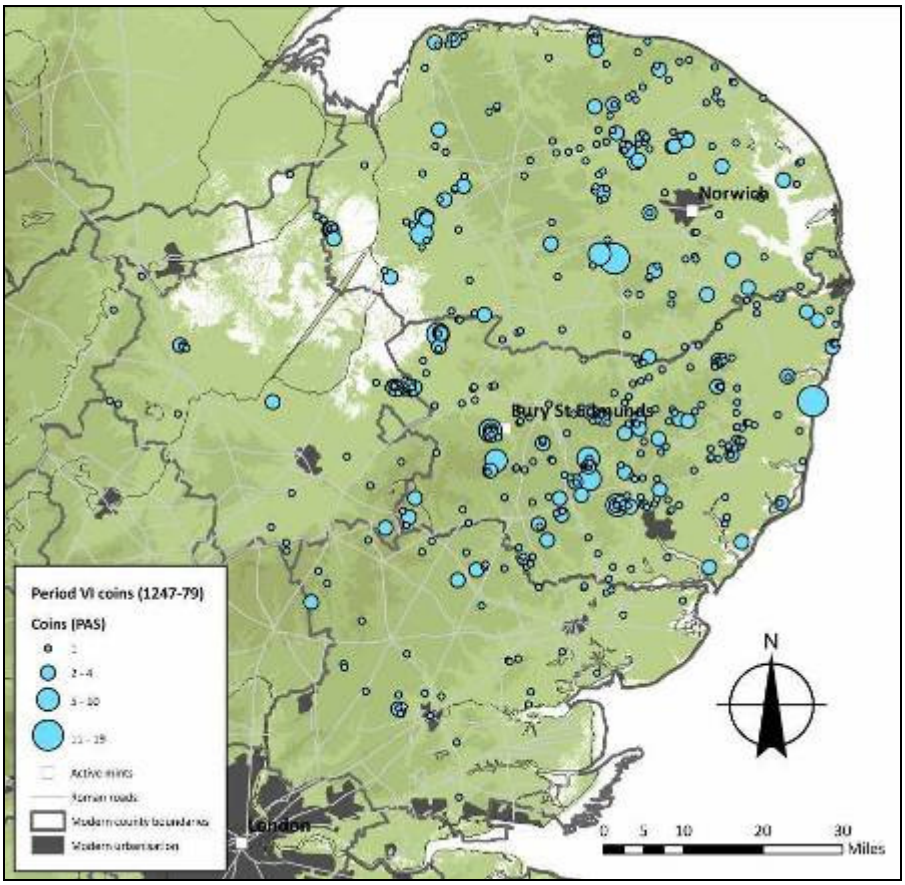
Map 4.33 West Central England and Wales Period VI distribution.



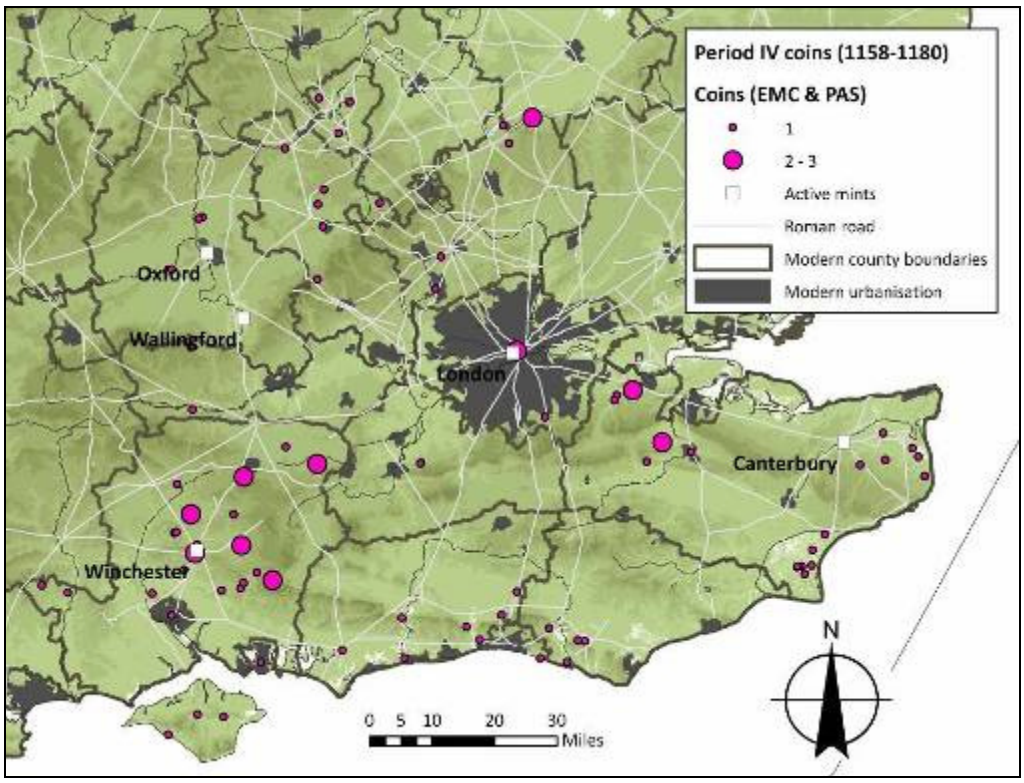
Map 4.34 East Anglia Period IV distribution.



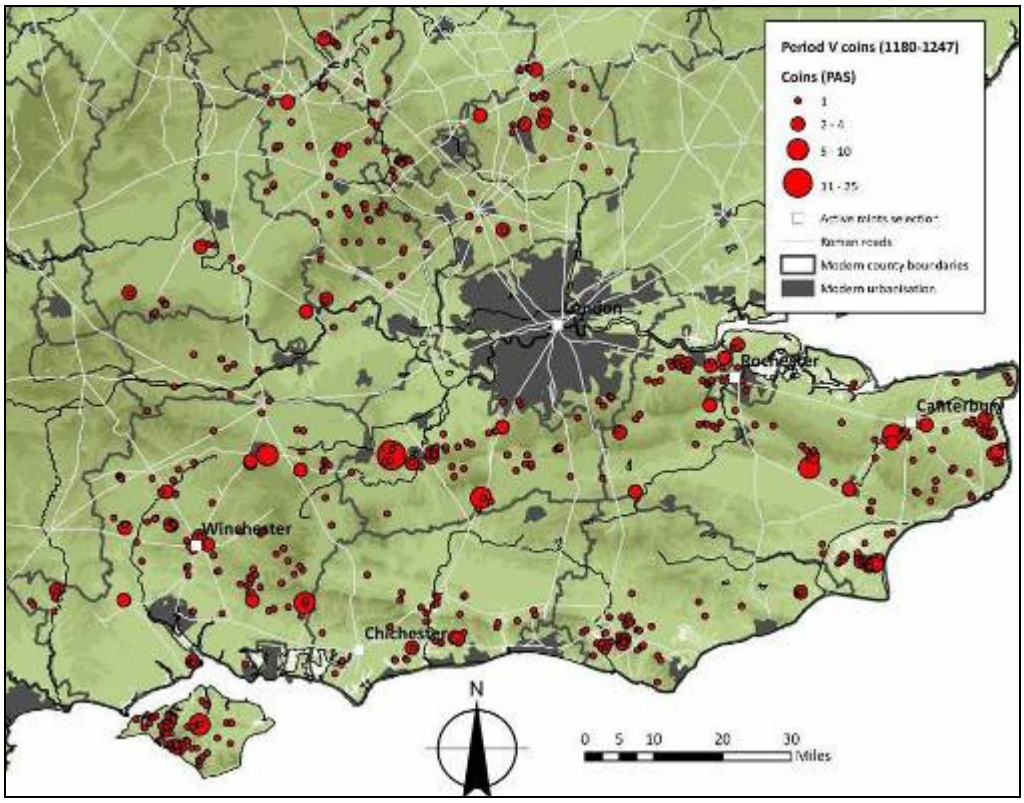
Map 4.35 East Anglia Period V distribution.



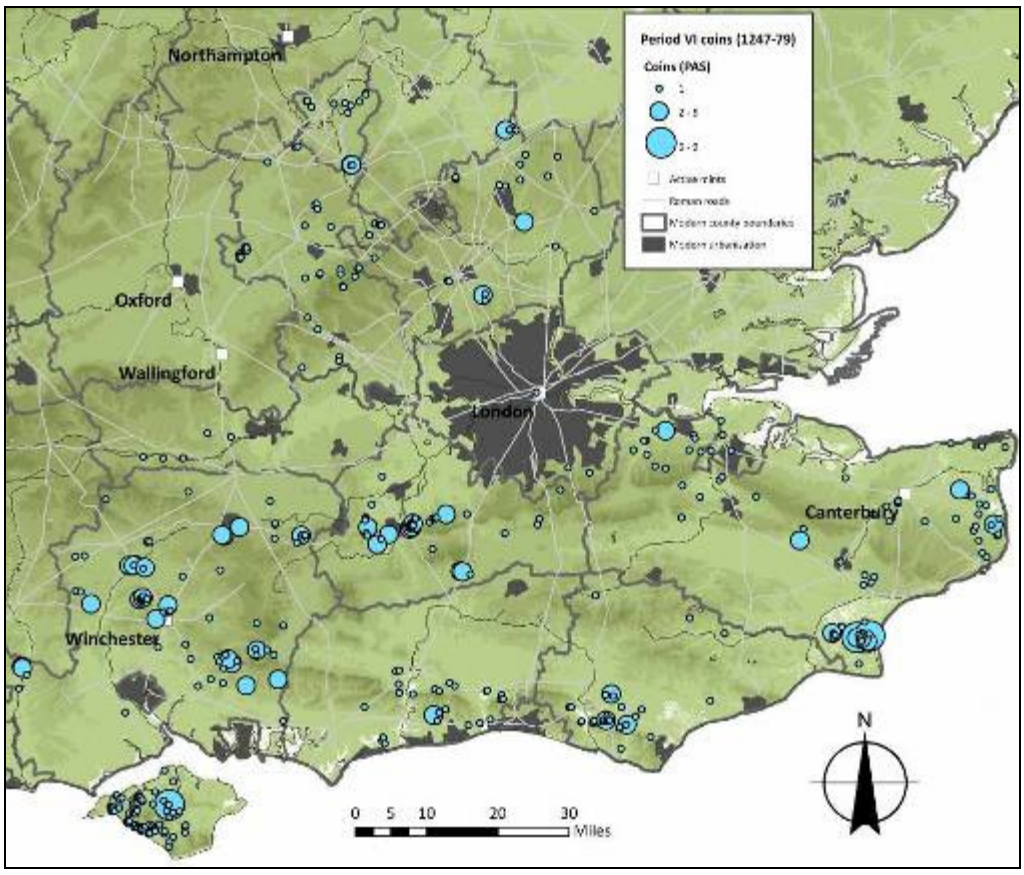
Map 4.36 East Anglia Period VI distribution.



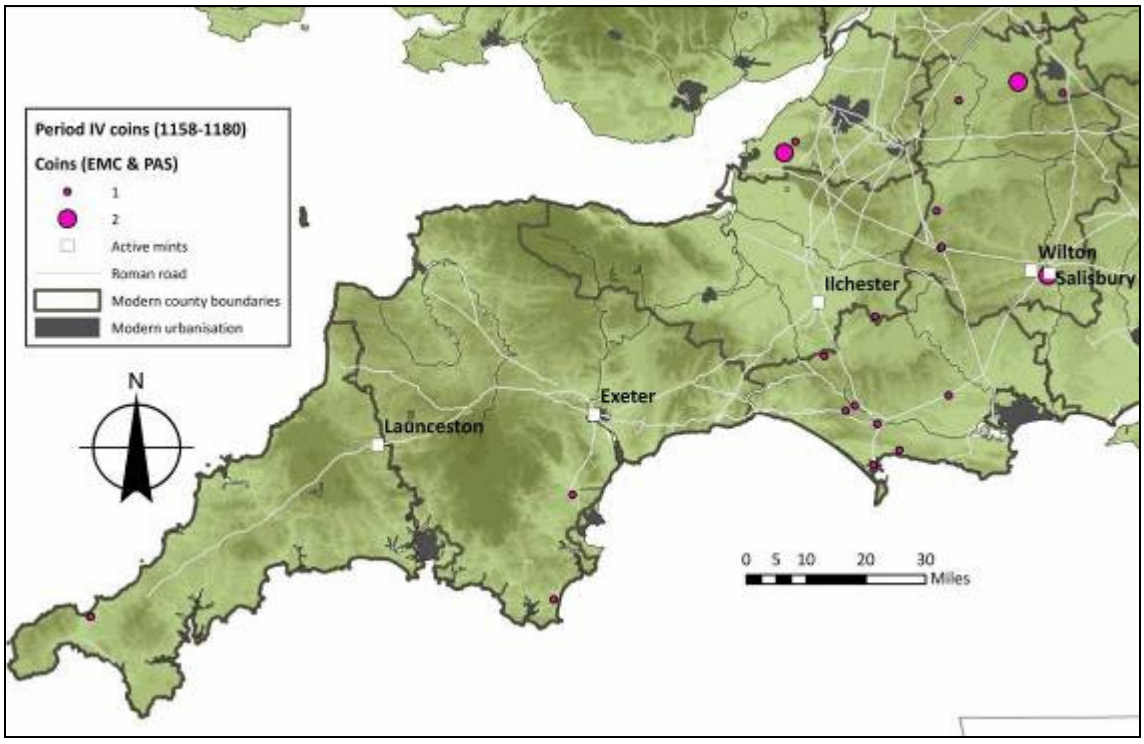
Map 4.37 South East Period IV distribution.



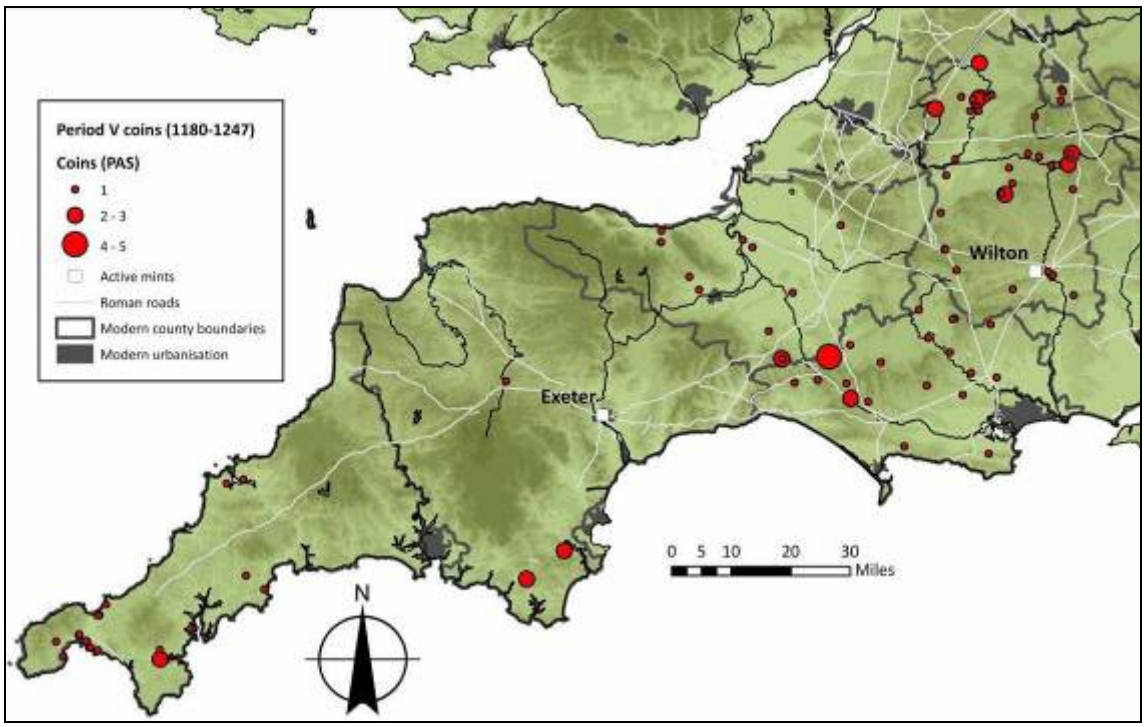
Map 4.38 South East Period V distribution.



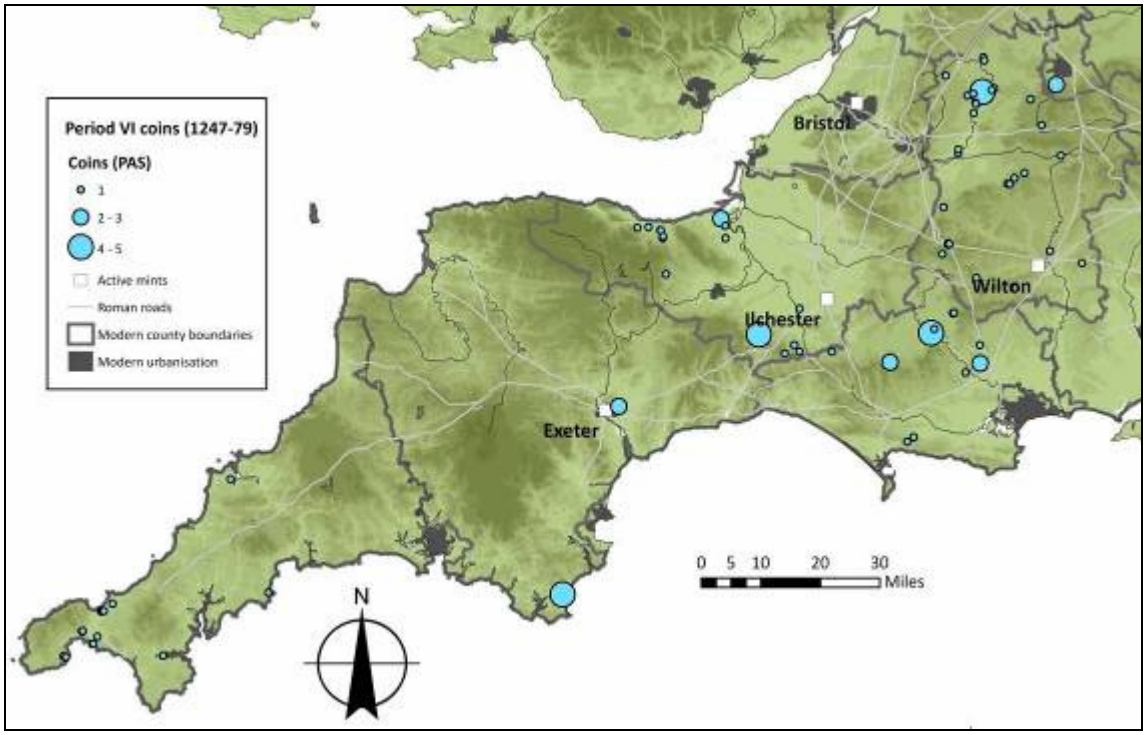
Map 4.39 South East Period VI distribution.



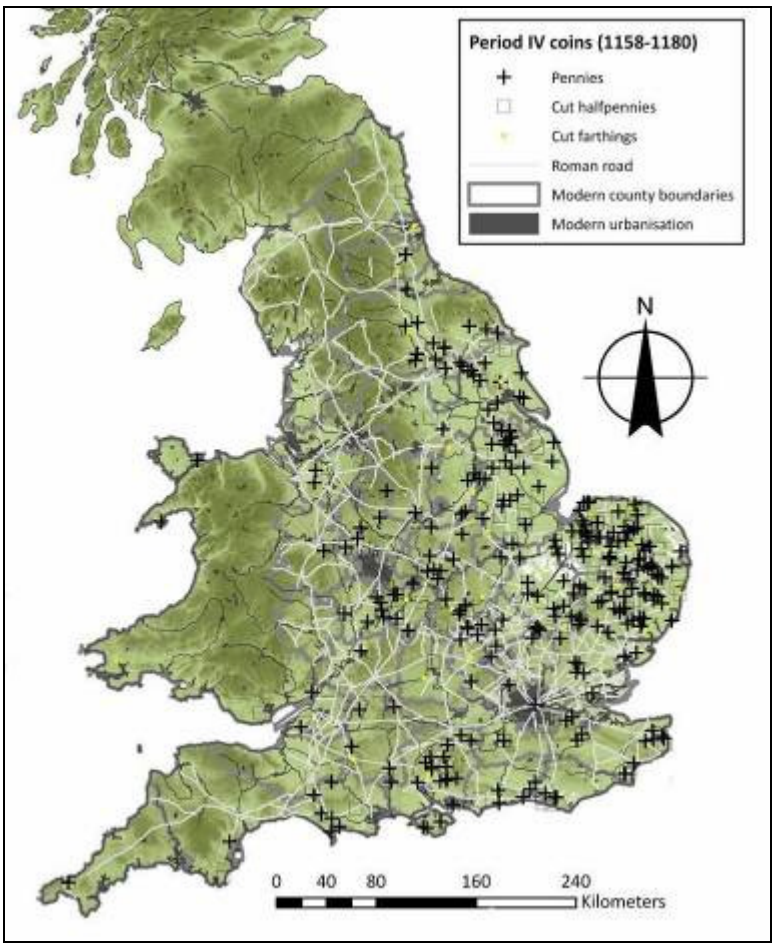
Map 4.40 South West Period IV distribution.



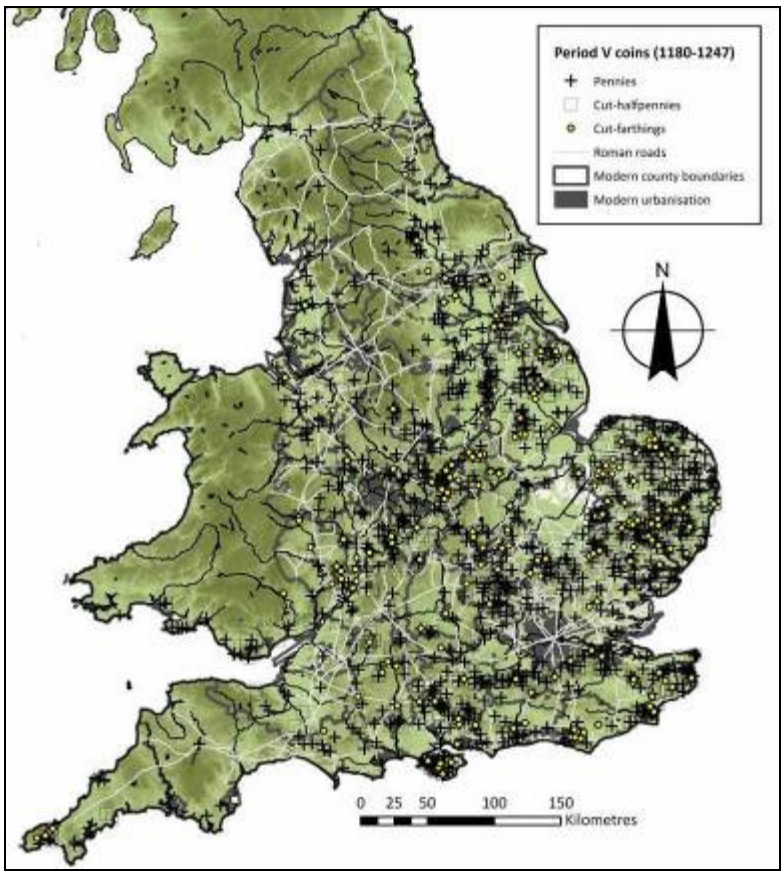
Map 4.41 South West Period V distribution.



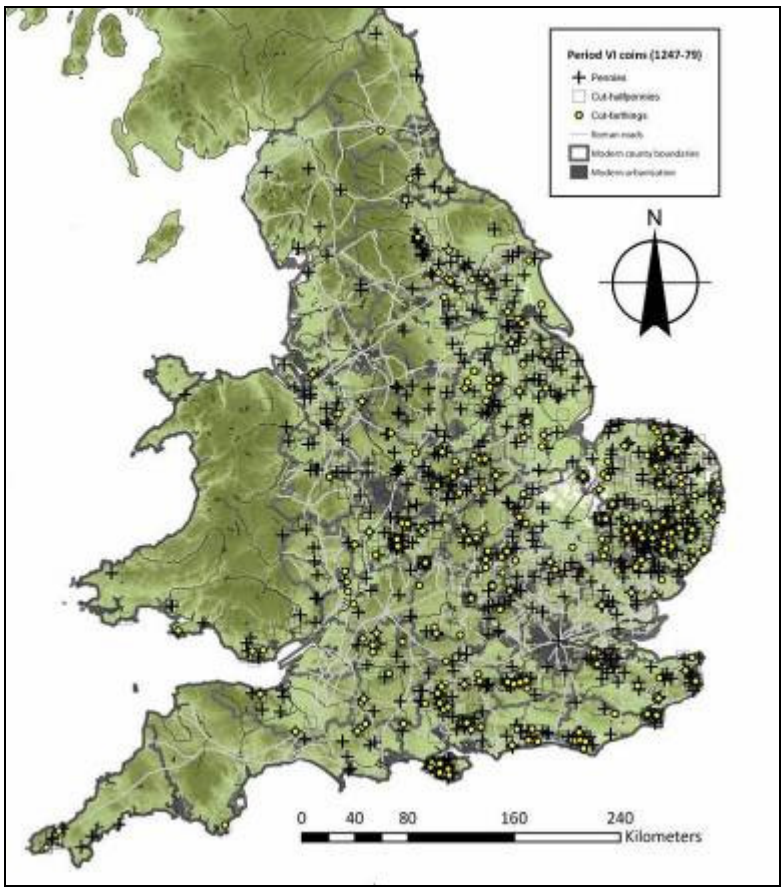
Map 4.42 South West Period VI distribution.



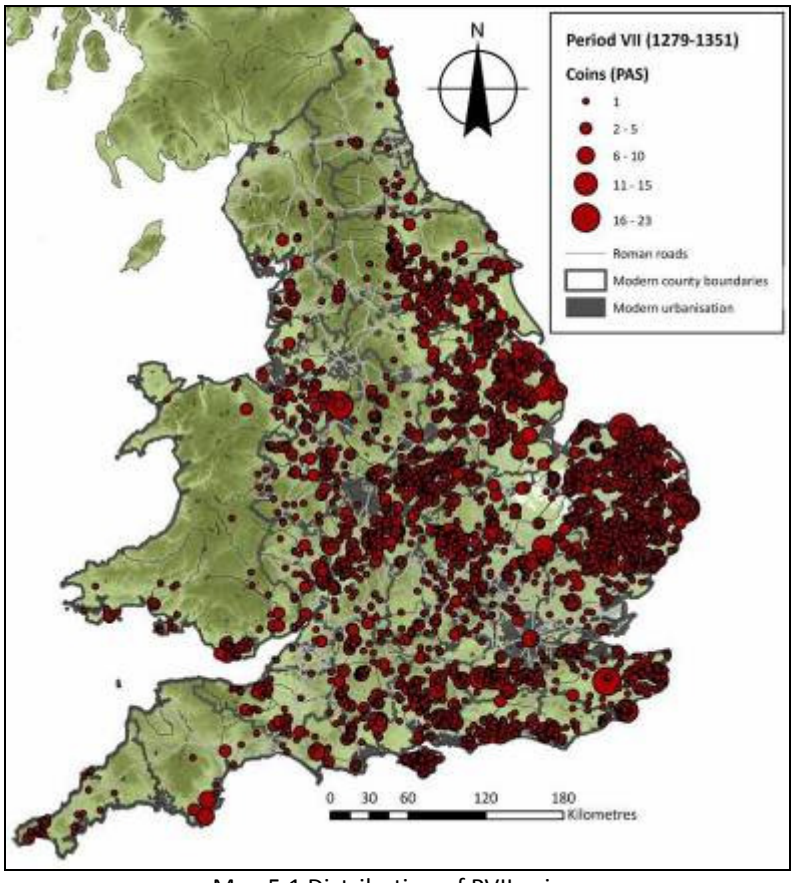
Map 4.43 Period IV denominations.



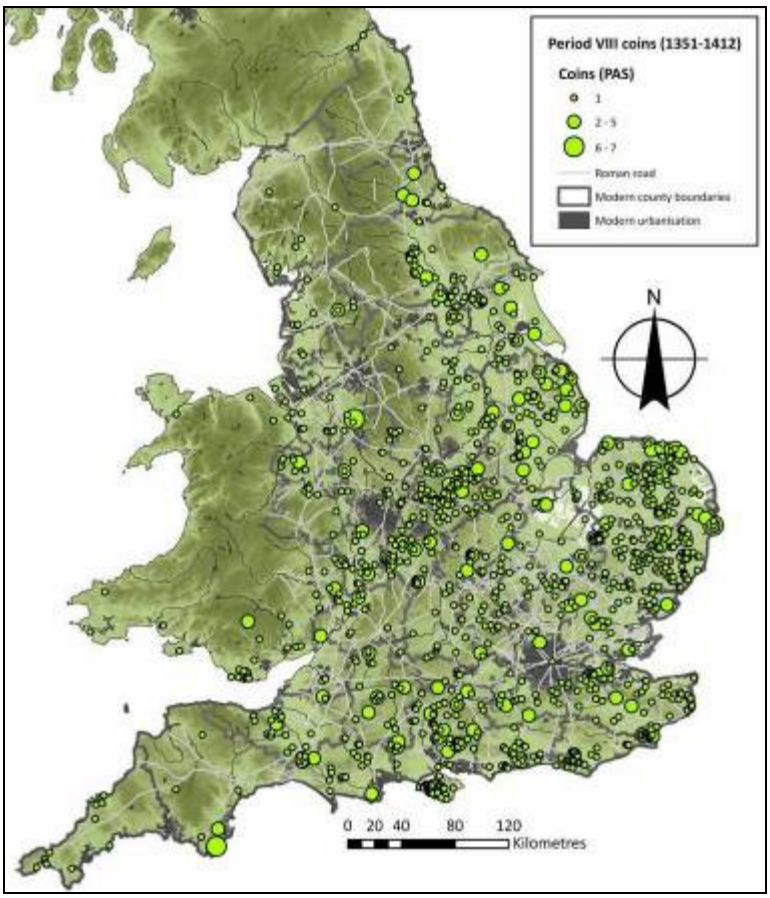
Map 4.44 Period V denominations.



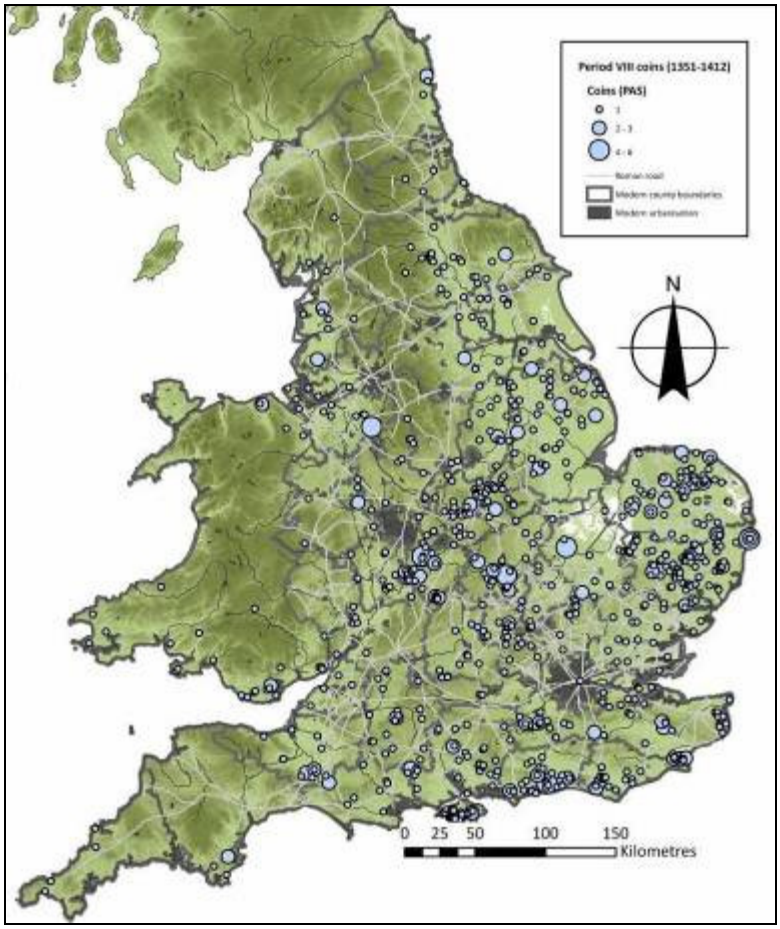
Map 4.45 Period VI denominations.



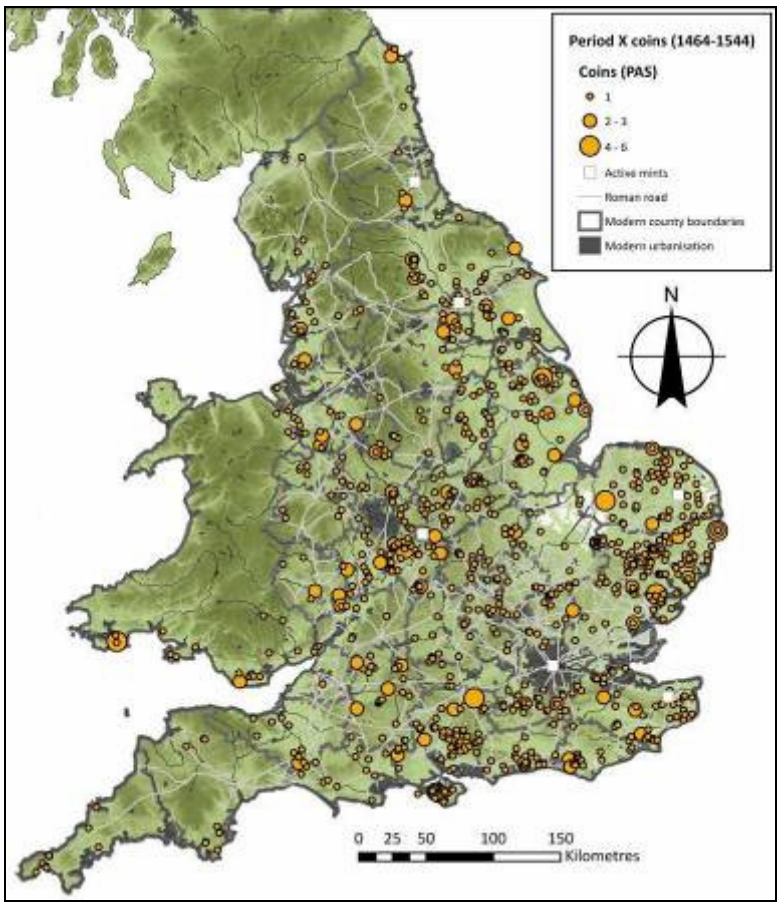
Map 5.1 Distribution of PVII coins.



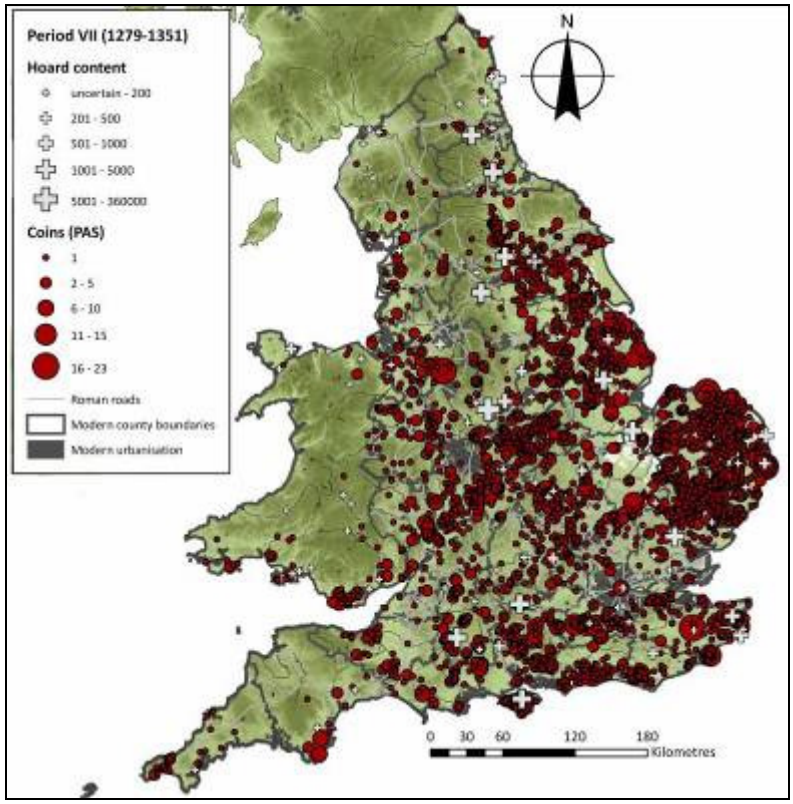
Map 5.2 Distribution of PVIII coins.



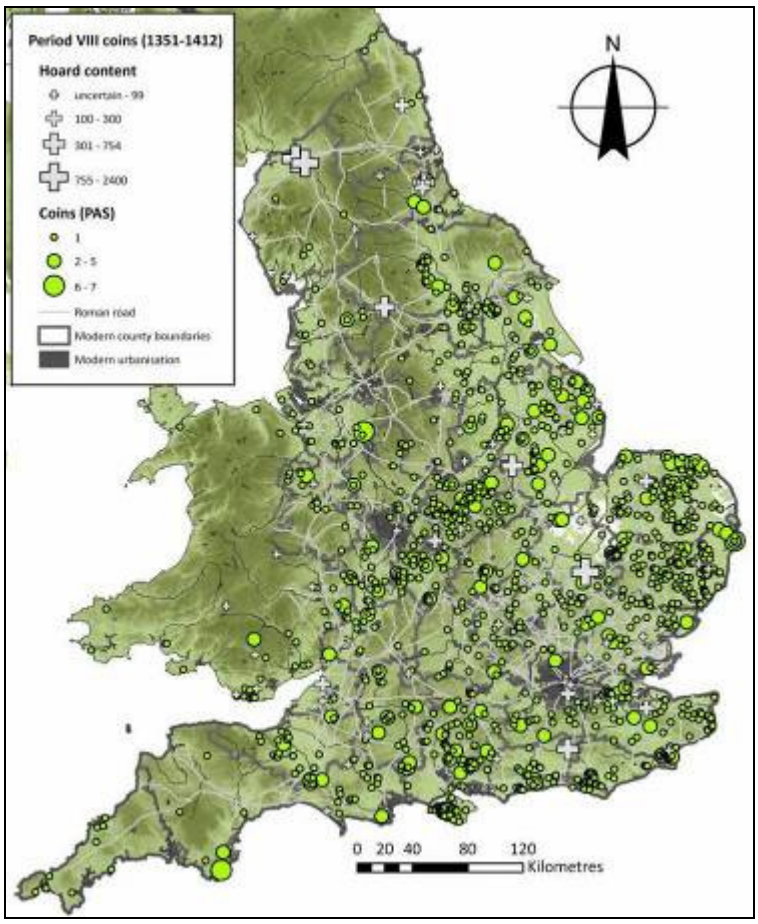
Map 5.3 Distribution of PIX coins.



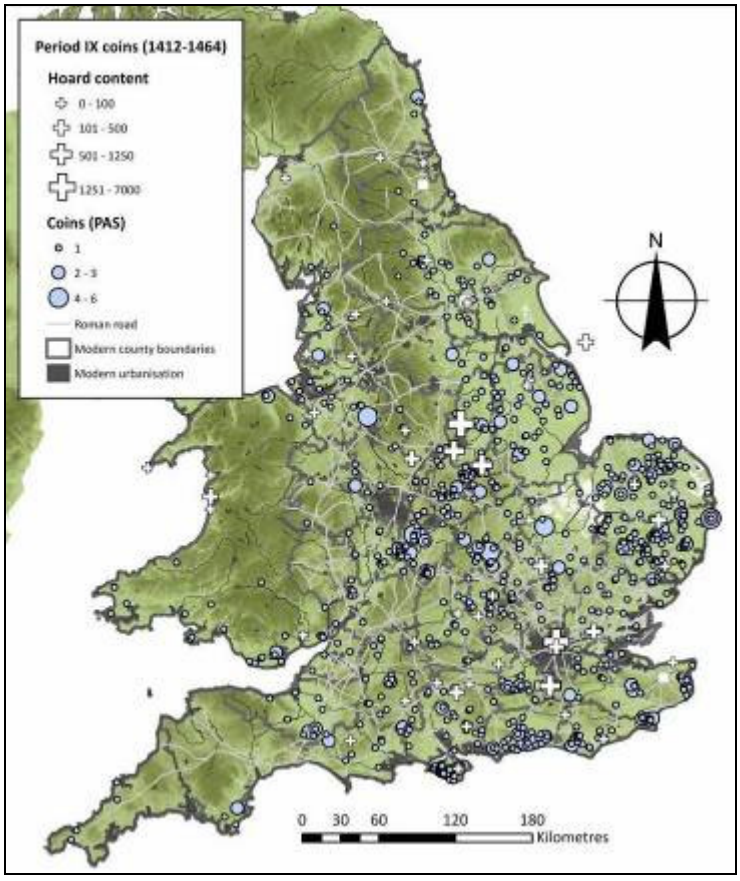
Map 5.4 Distribution of PX coins.



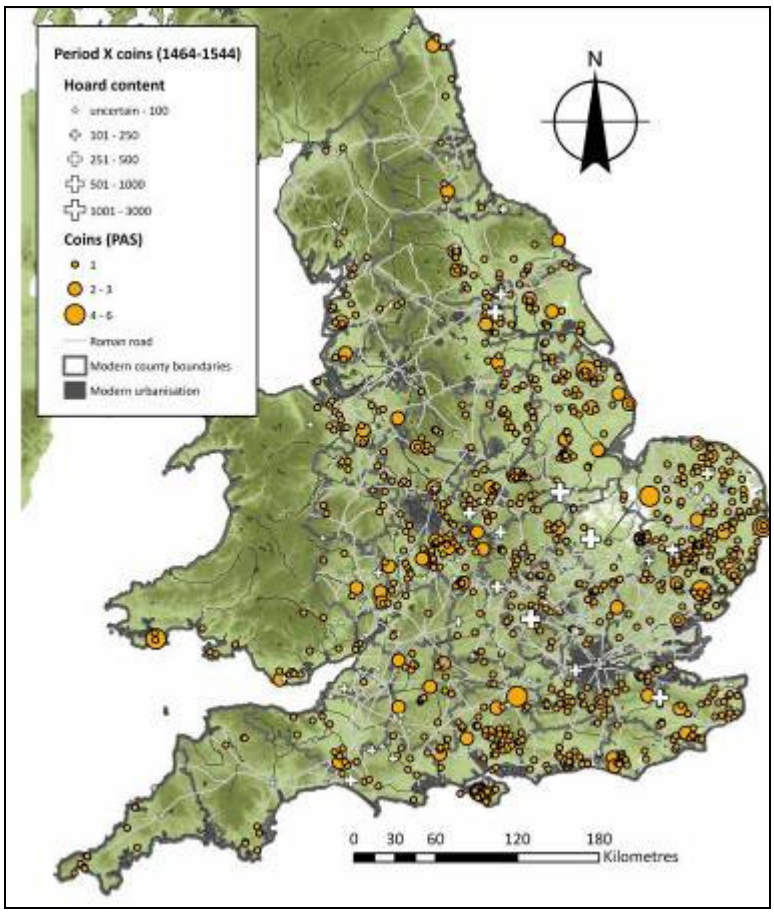
Map 5.5 Distribution of PVII hoards against single coins.



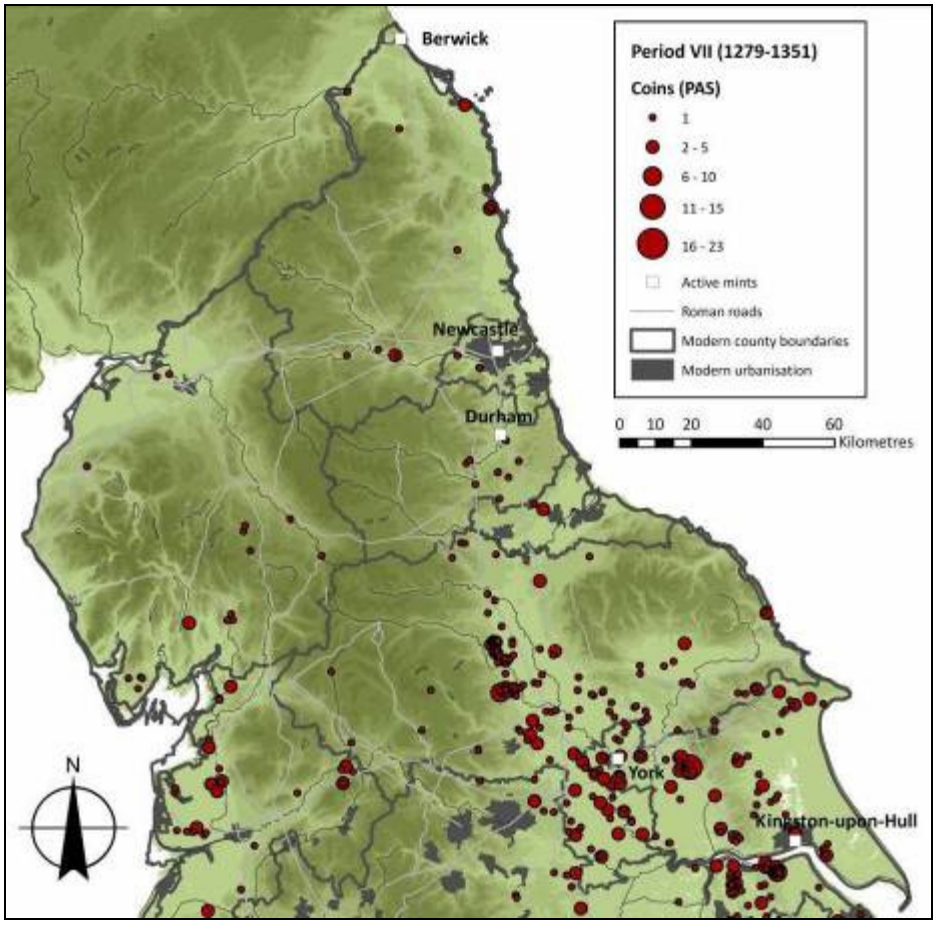
Map 5.6 Distribution of PVIII hoards against single coins.



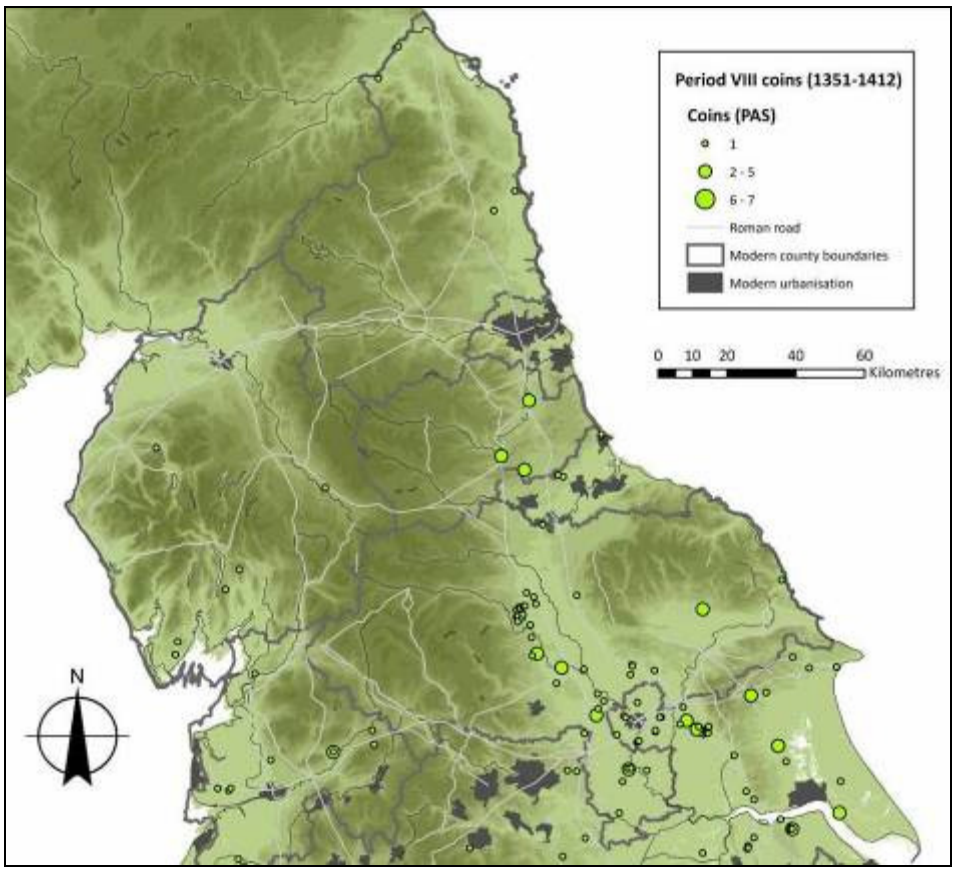
Map 5.7 Distribution of PIX hoards against single coins.



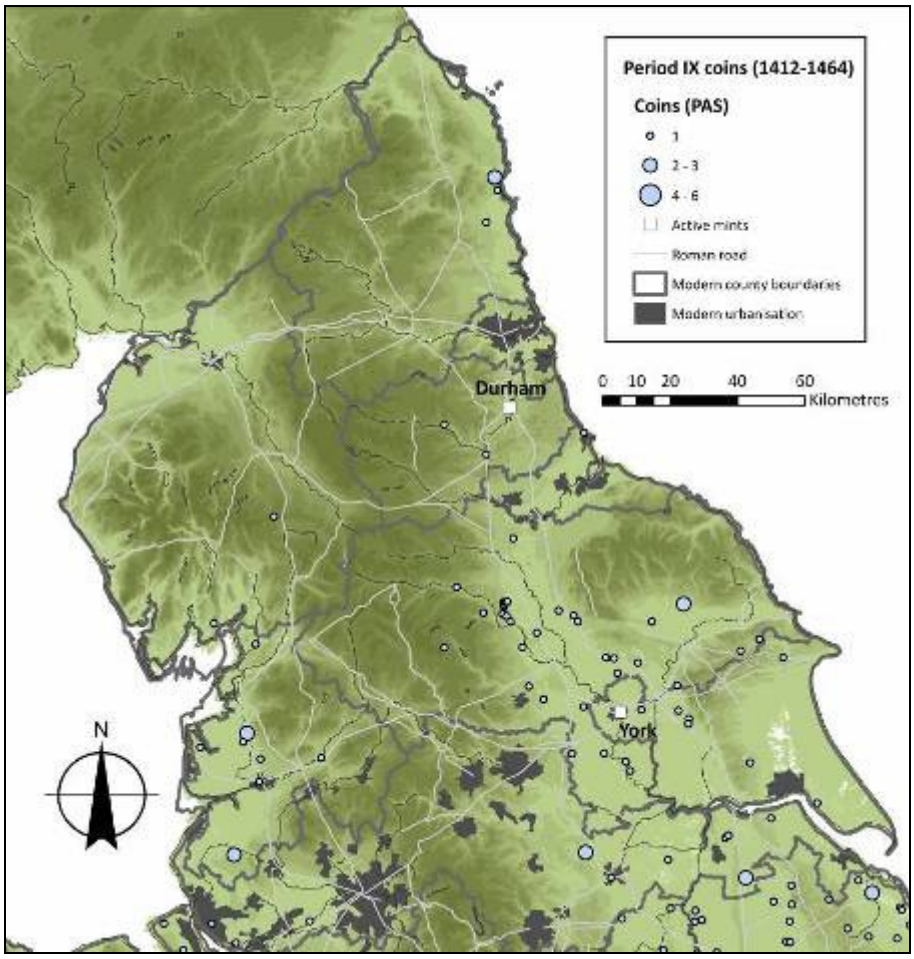
Map 5.8 Distribution of PX hoards against single coins.



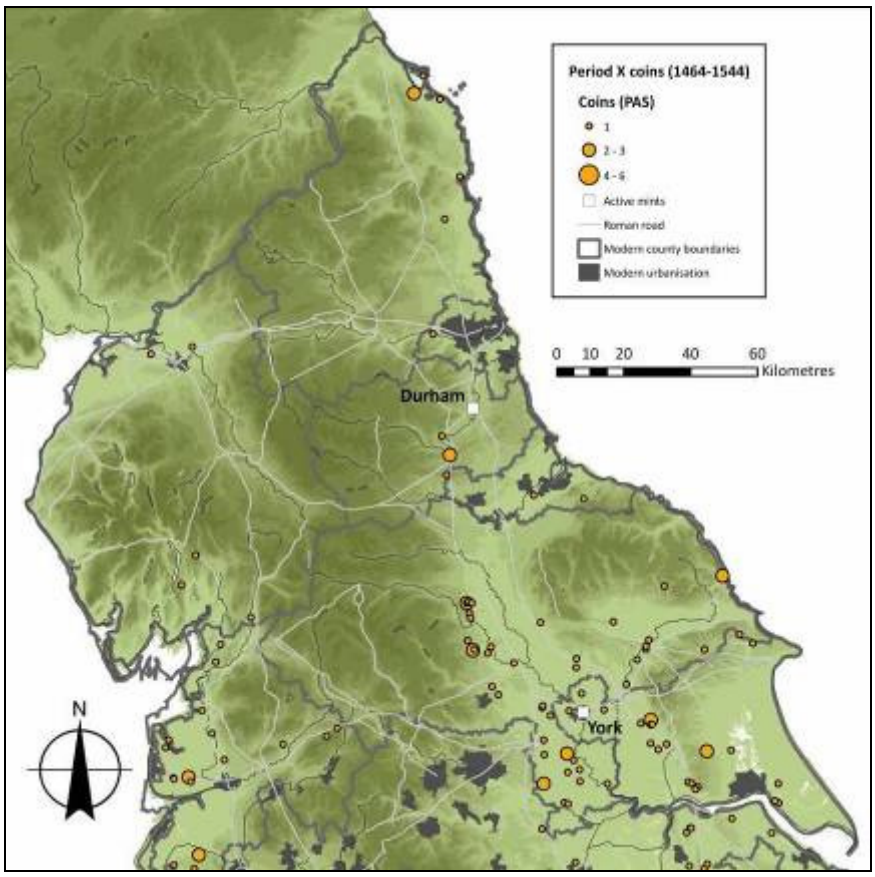
Map 5.9 Northern region PVII.



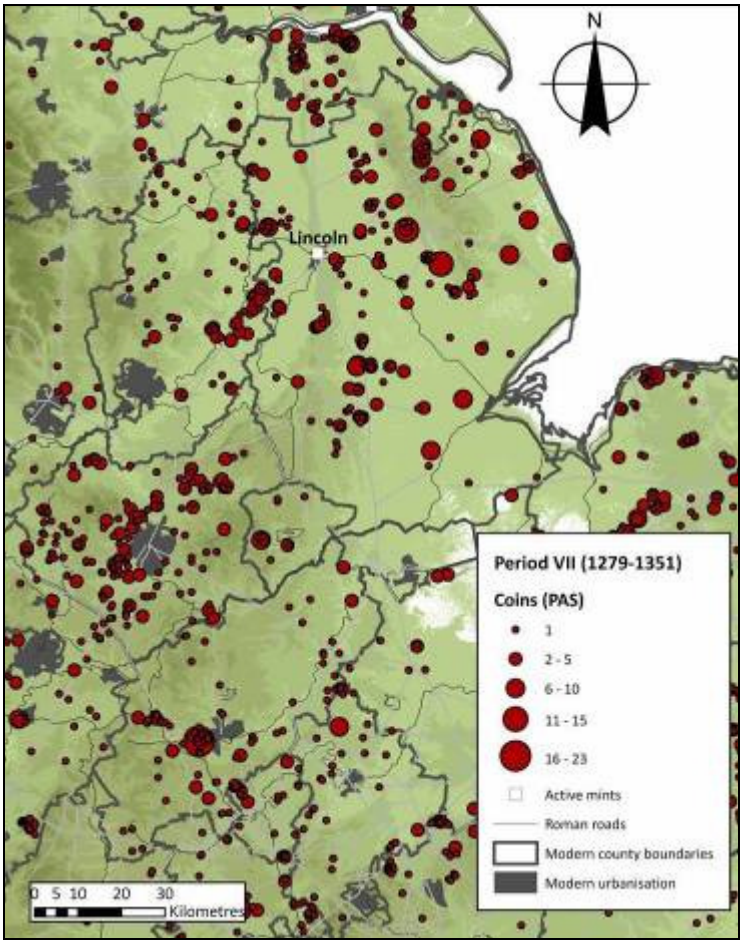
Map 5.10 Northern region PVIII.



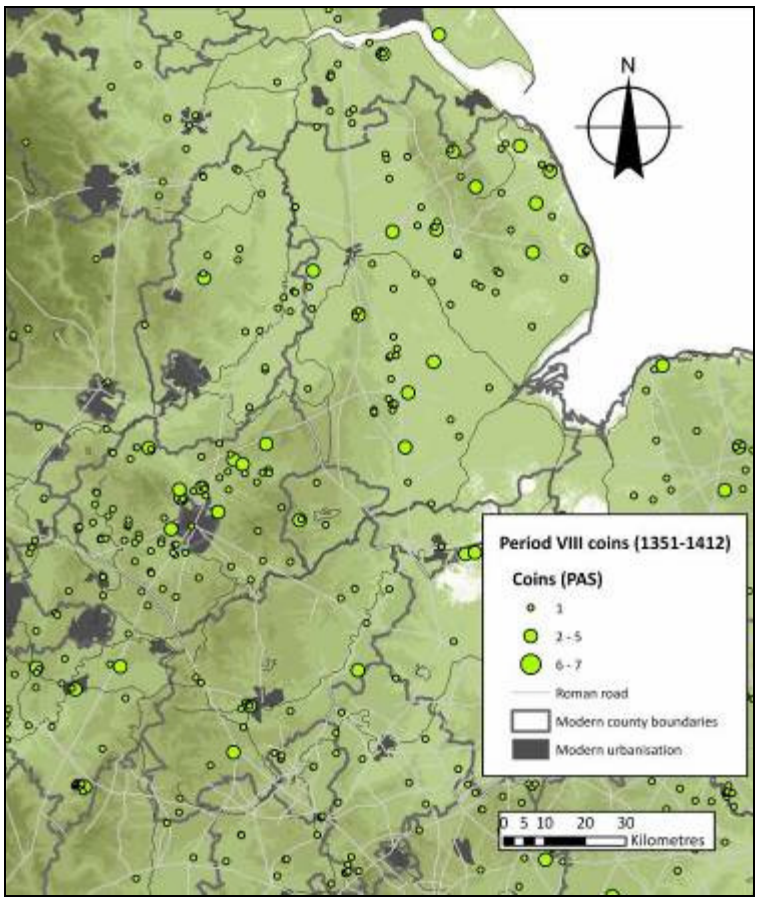
Map 5.11 Northern region PIX.



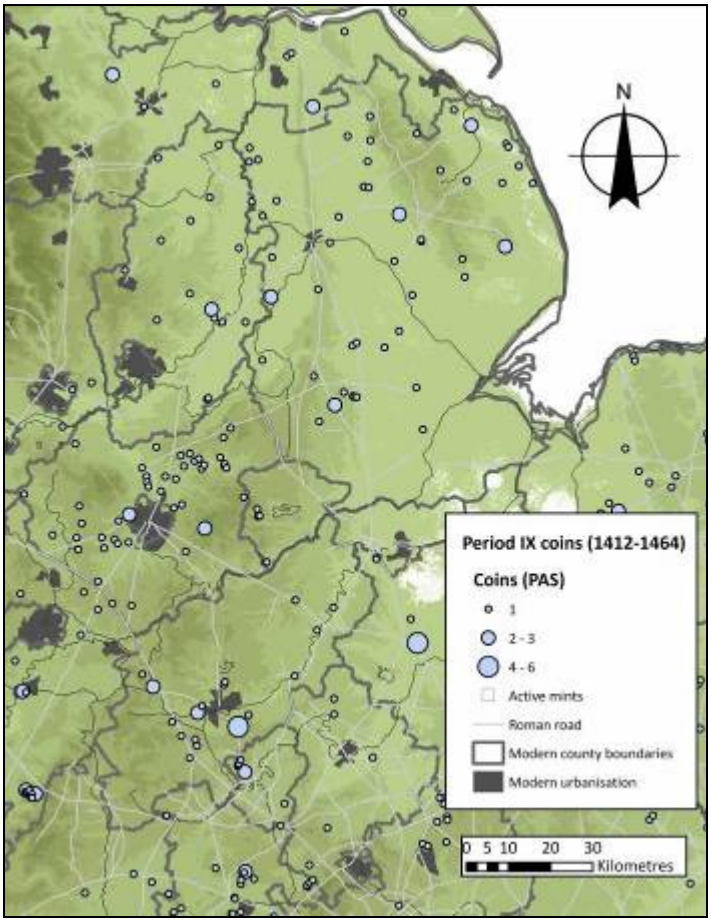
Map 5.12 Northern region PX.



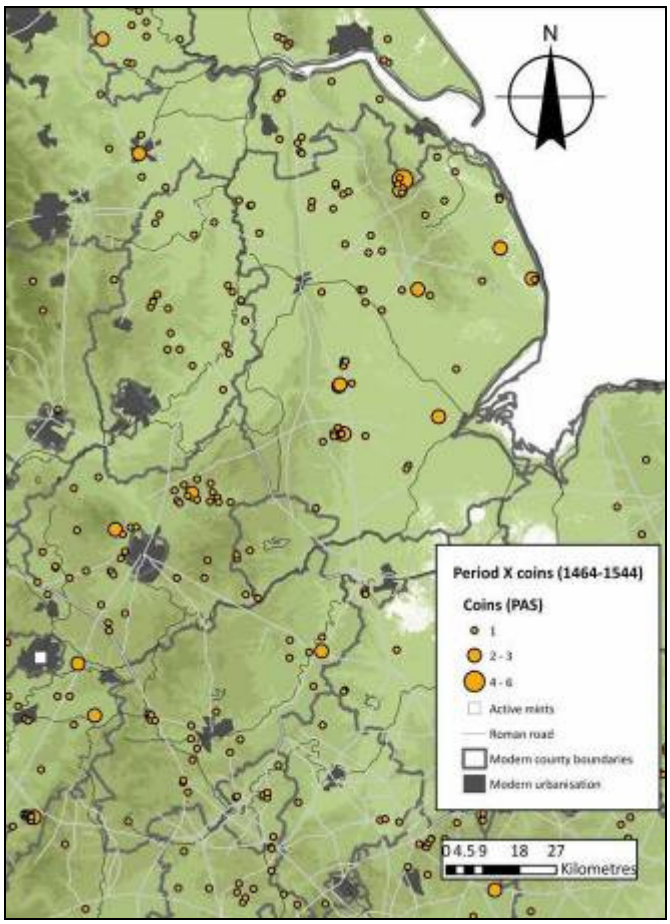
Map 5.13 East Central England region PVII.



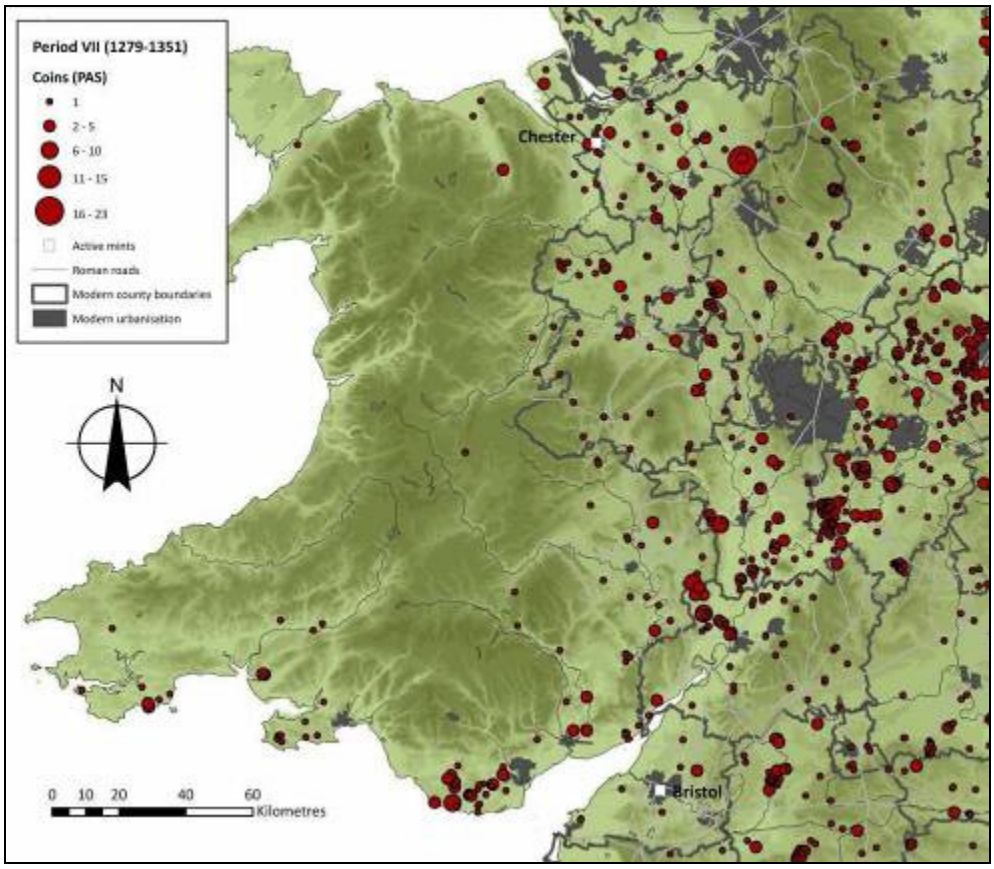
Map 5.14 East Central England region PVIII.



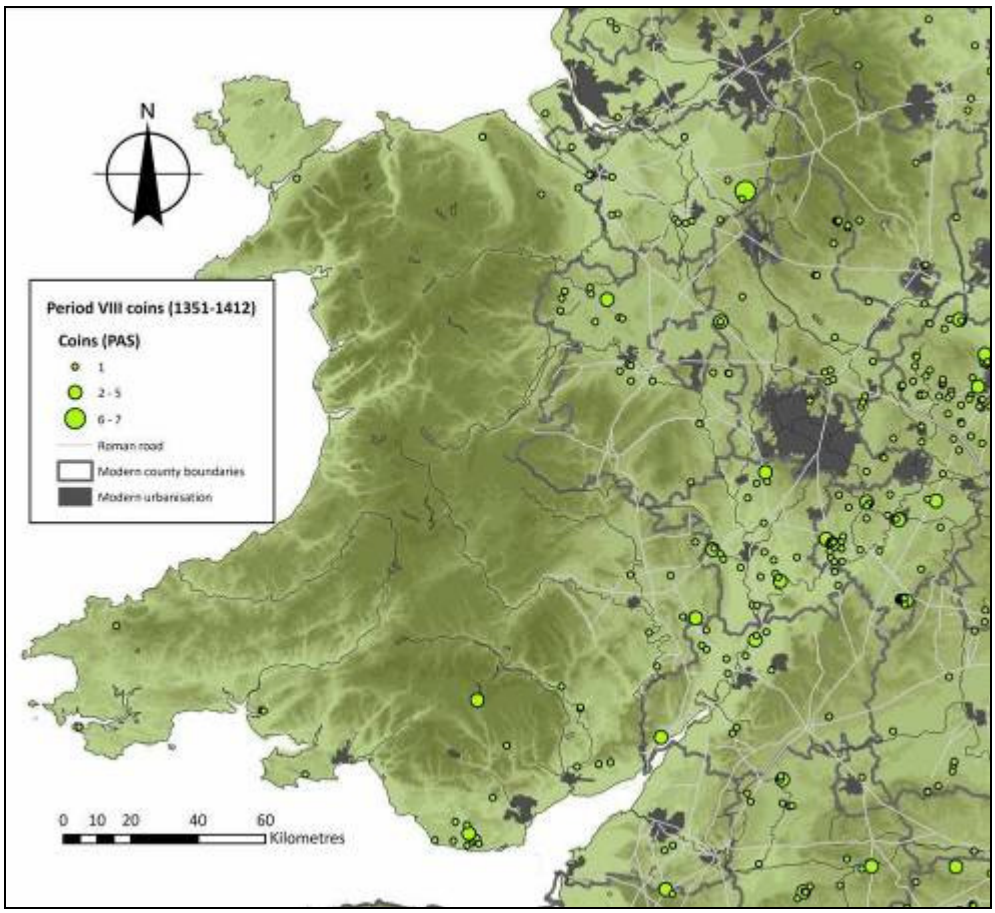
Map 5.15 East Central England region PIX.



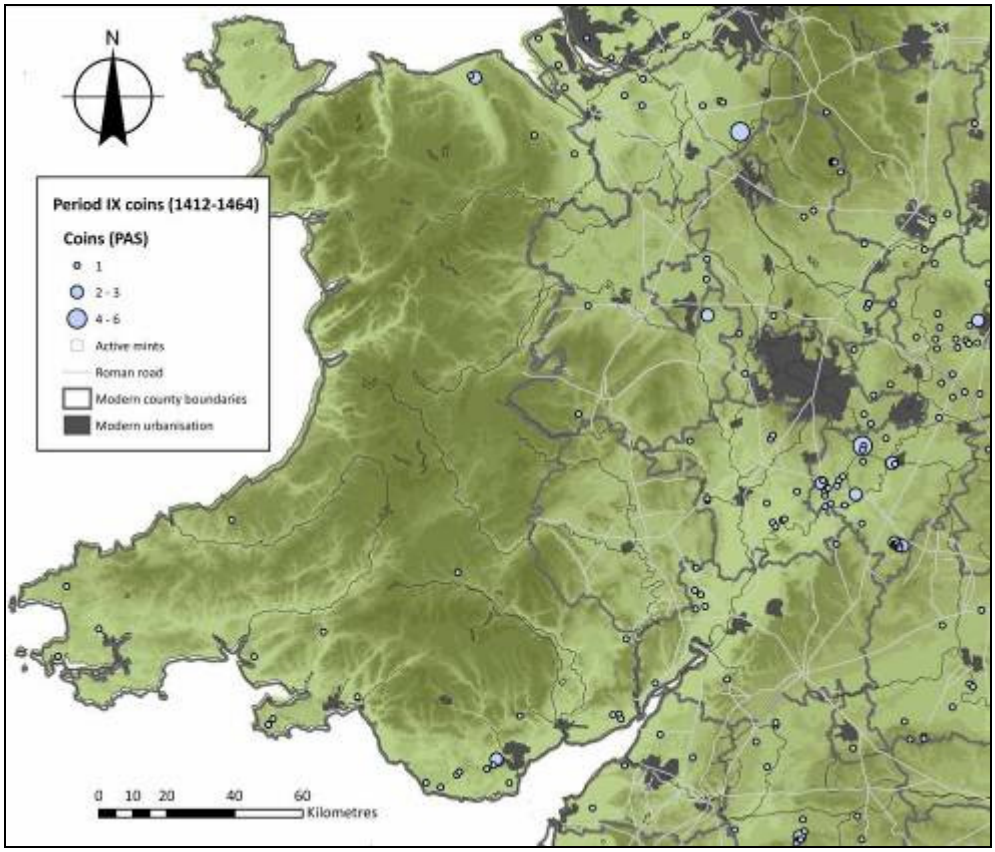
Map 5.16 East Central England region PX.



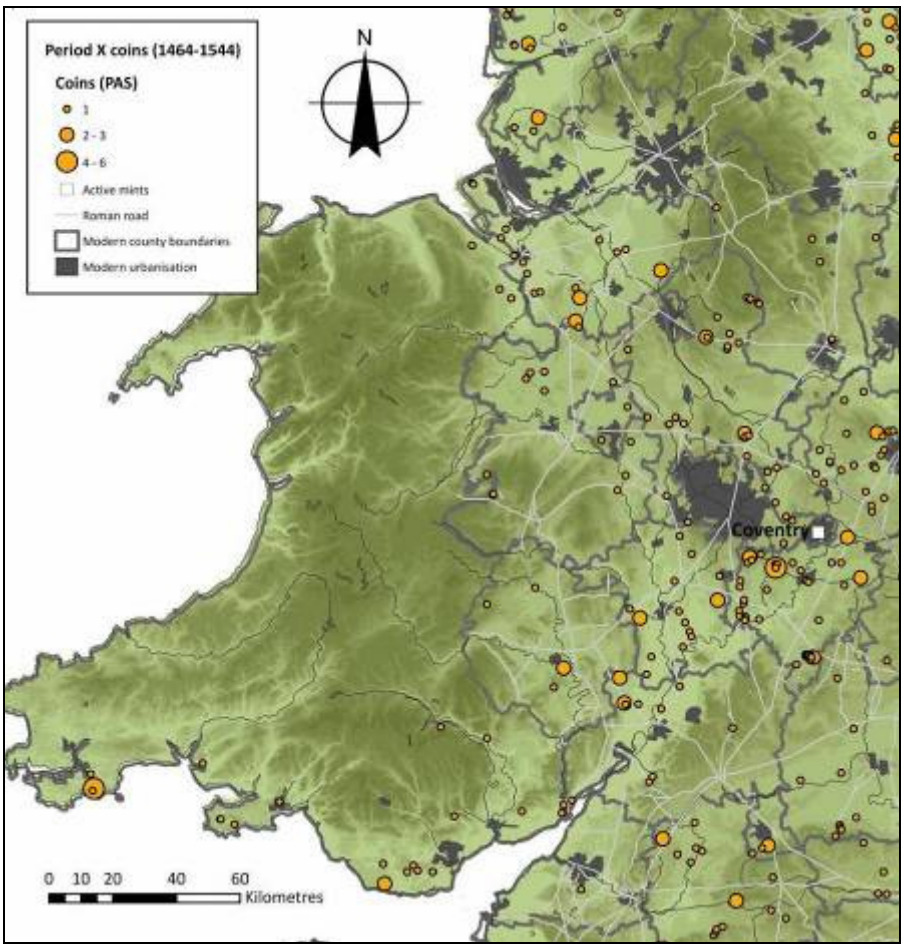
Map 5.17 West Central England and Wales PVII.



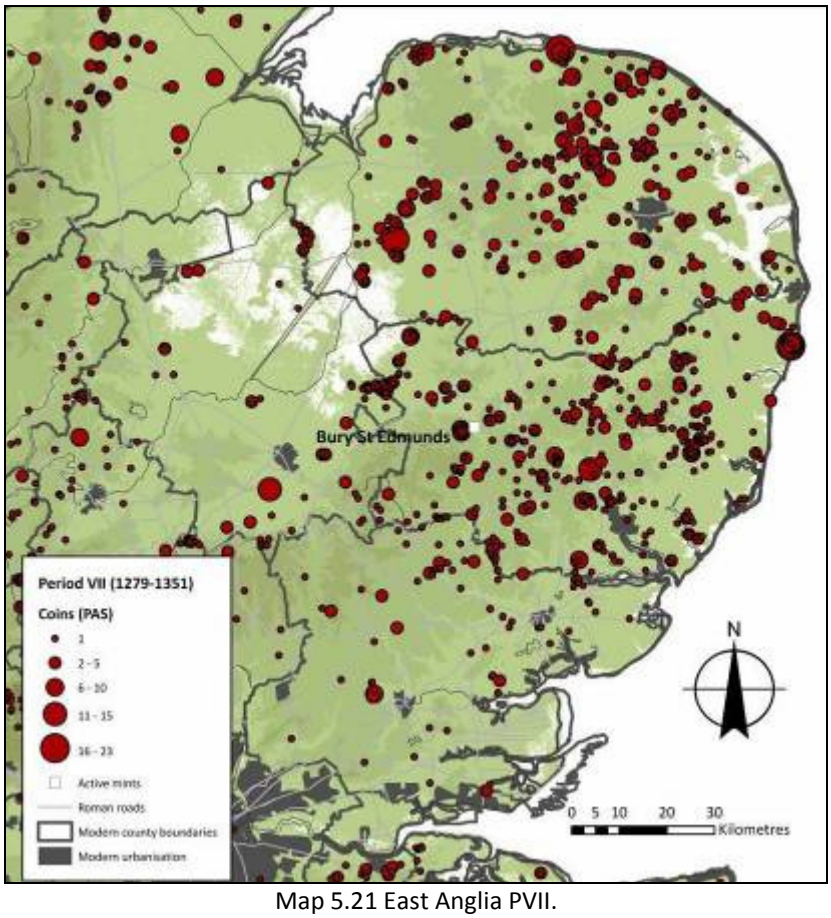
Map 5.18 West Central England and Wales PVIII.



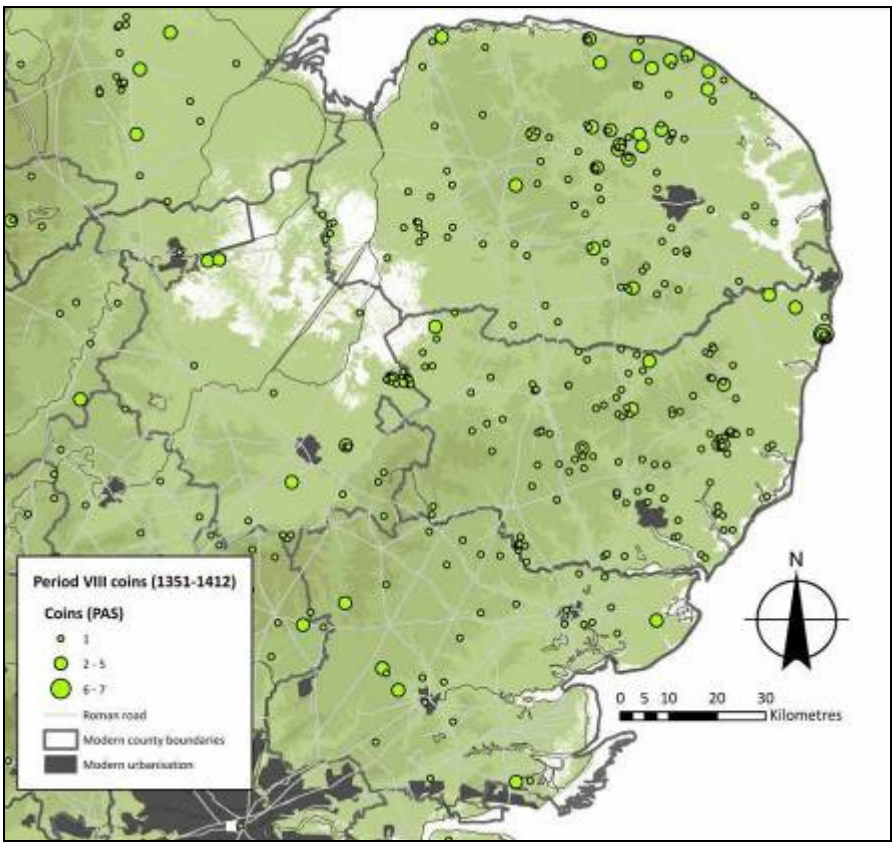
Map 5.19 West Central England and Wales PIX.



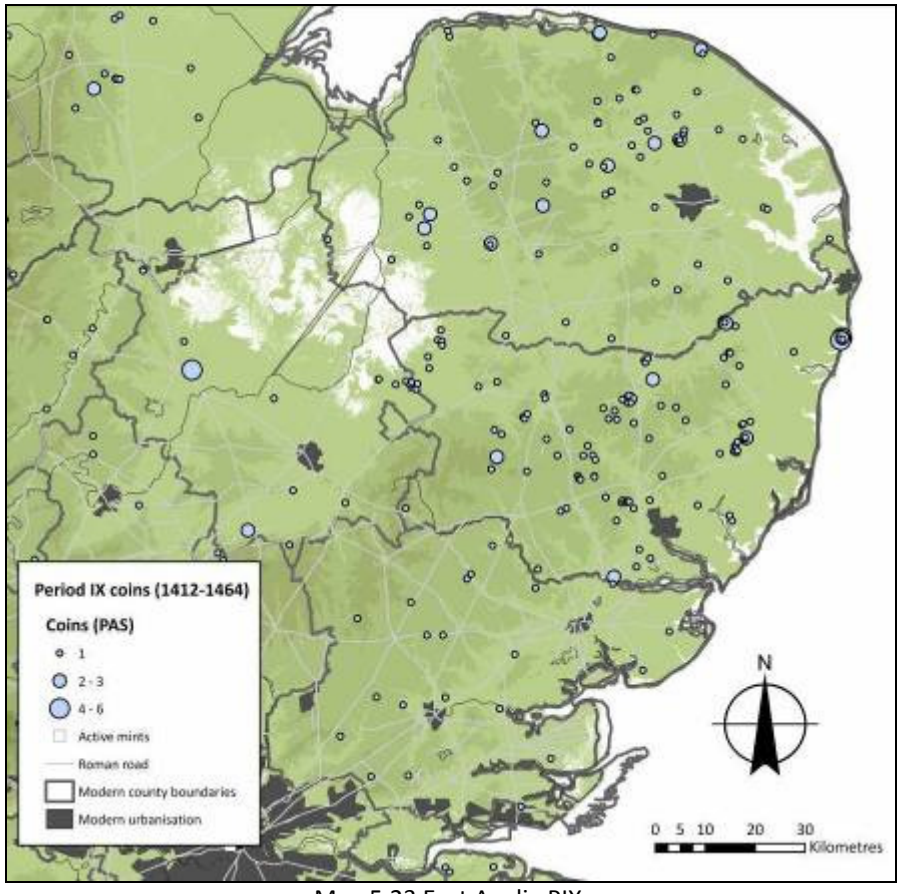
Map 5.20 West Central England and Wales PX.



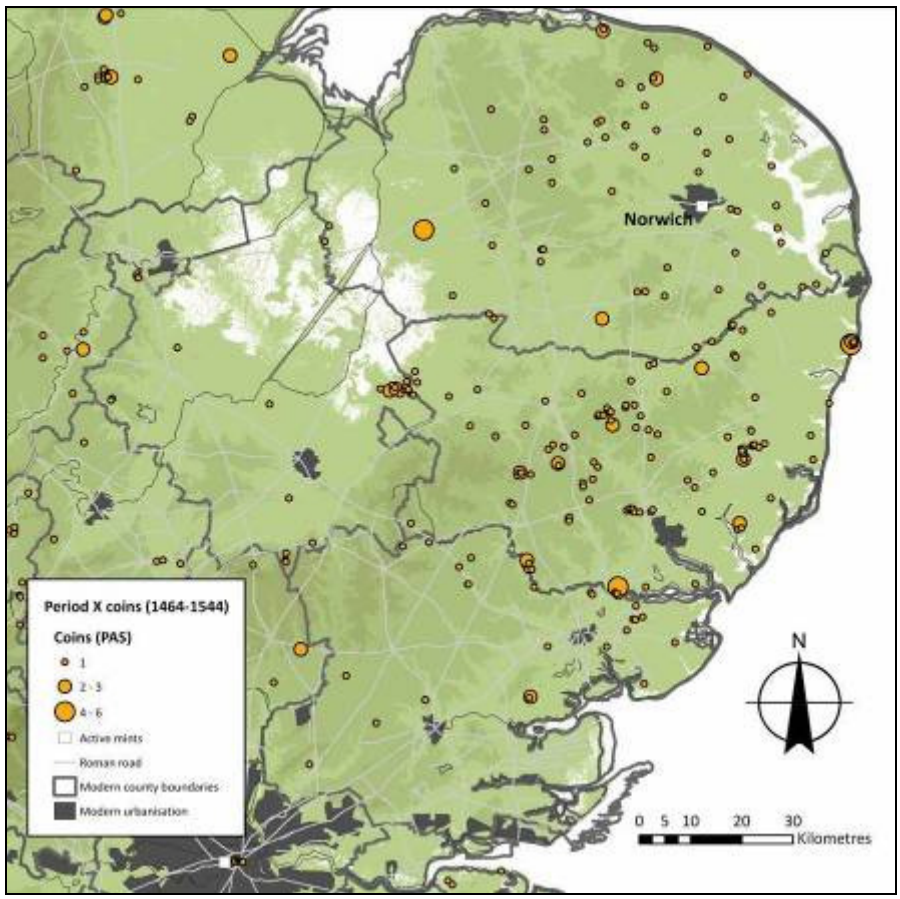
Map 5.21 East Anglia PVII.



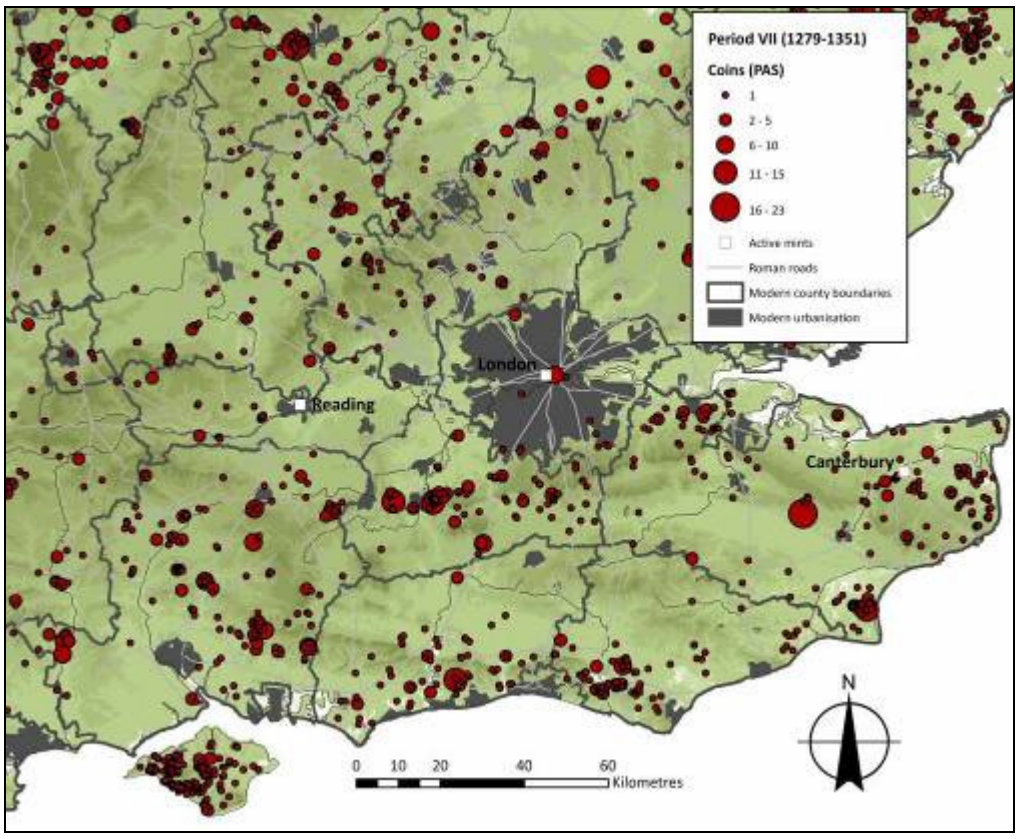
Map 5.22 East Anglia PVIII.



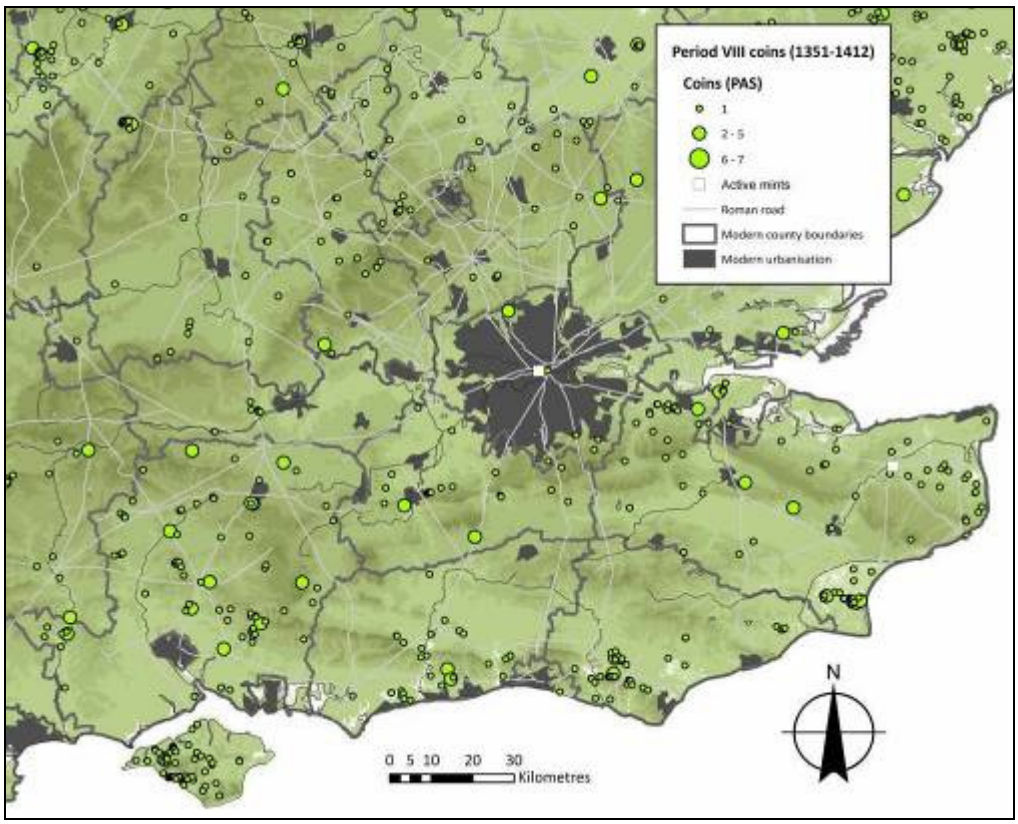
Map 5.23 East Anglia PIX.



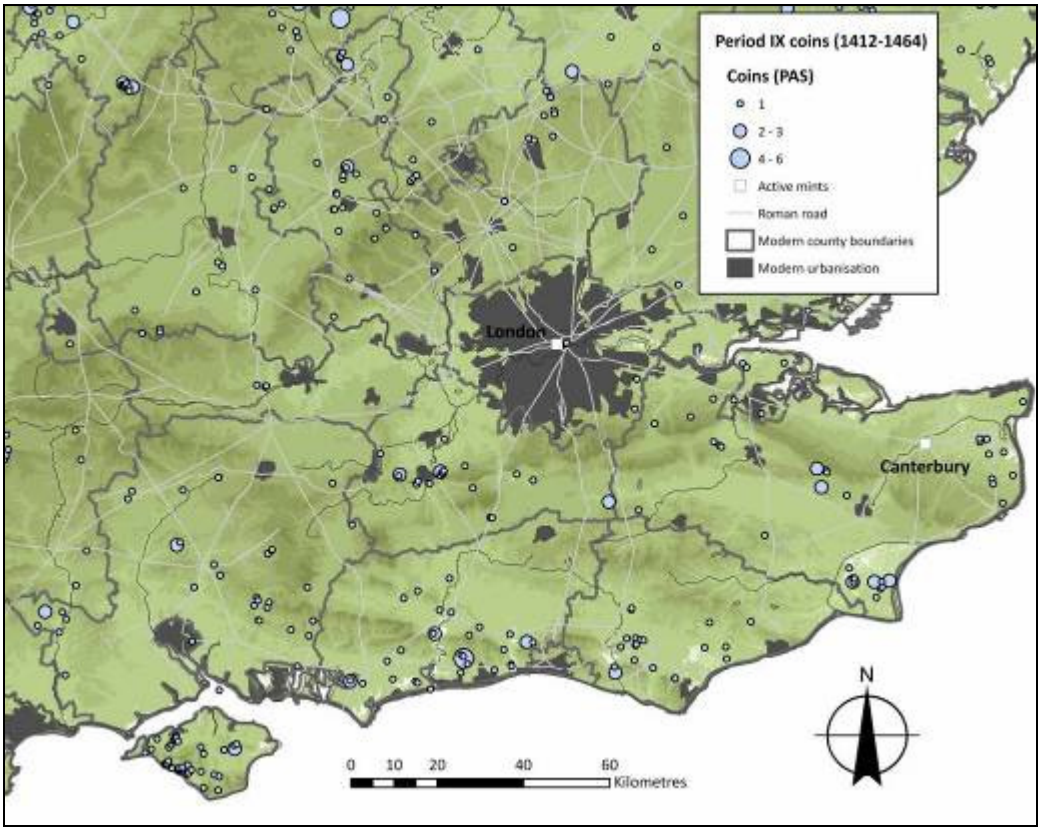
Map 5.24 East Anglia PX.



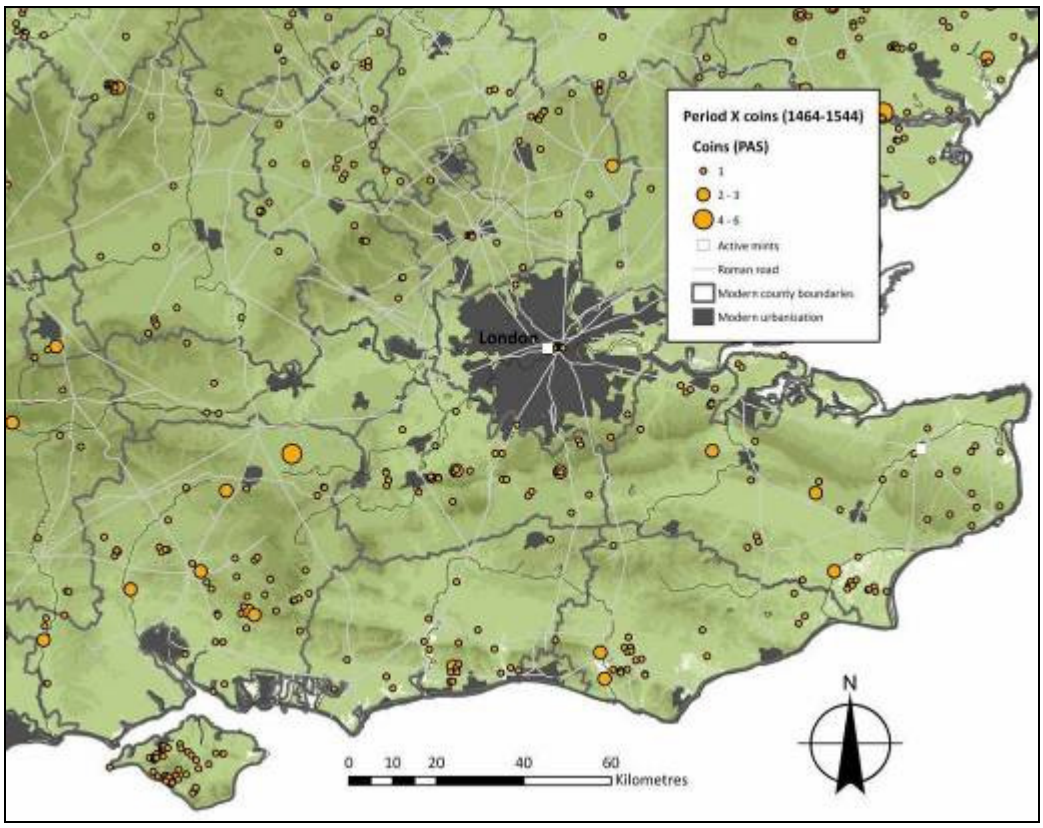
Map 5.25 South Eastern England PVII.



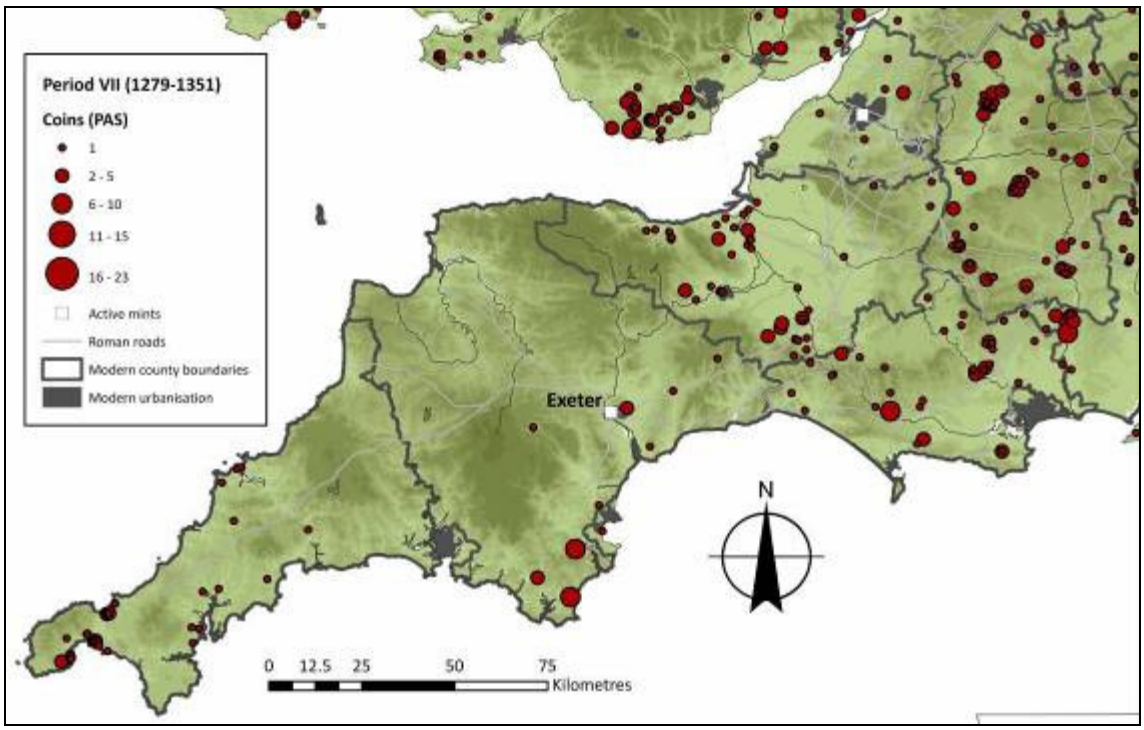
Map 5.26 South Eastern England PVIII.



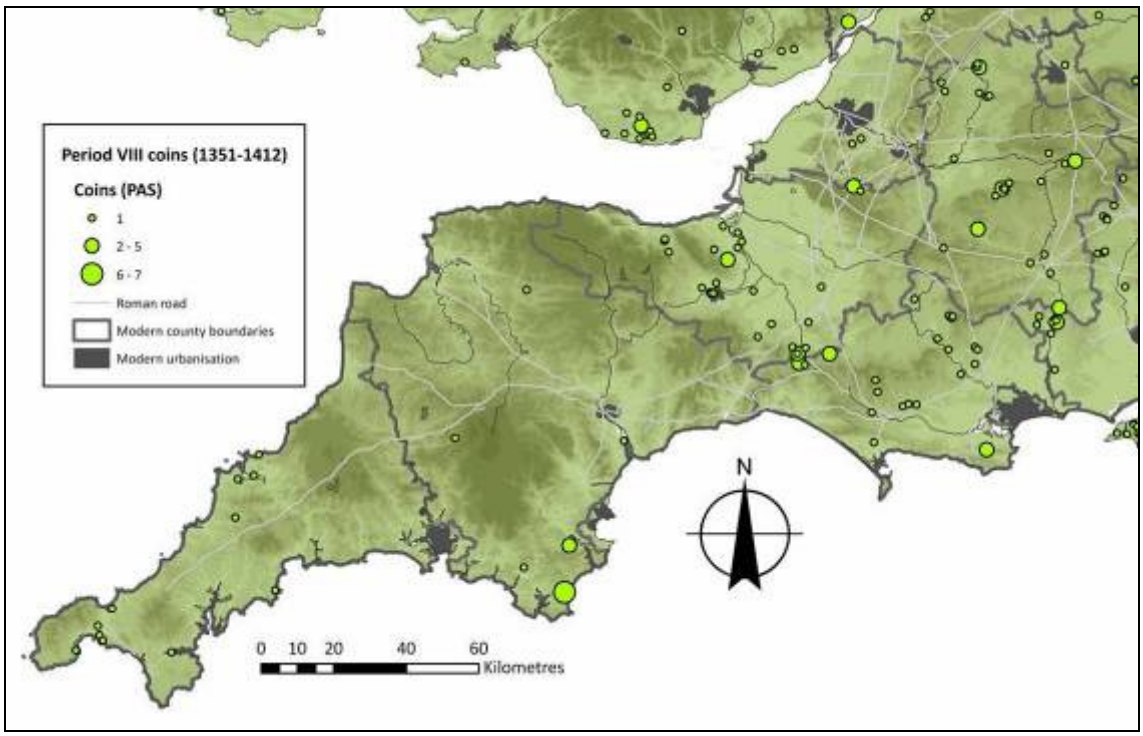
Map 5.27 South Eastern England PIX.



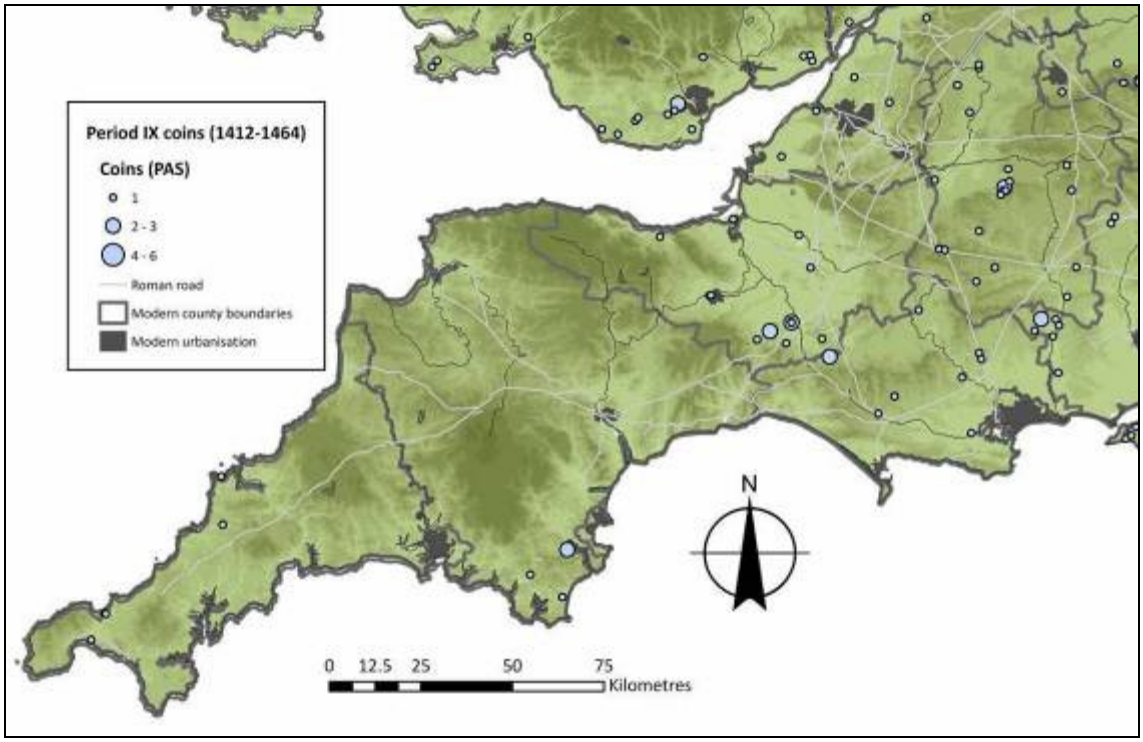
Map 5.28 South Eastern England PX.



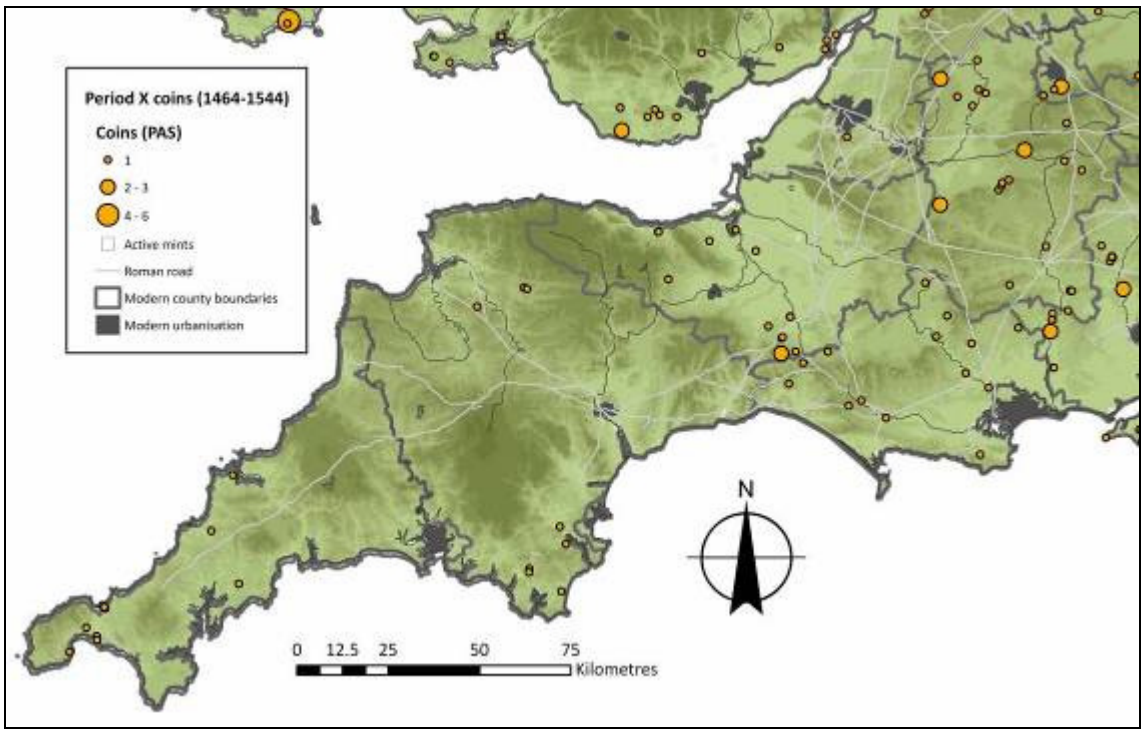
Map 5.29 South Western England PVII.



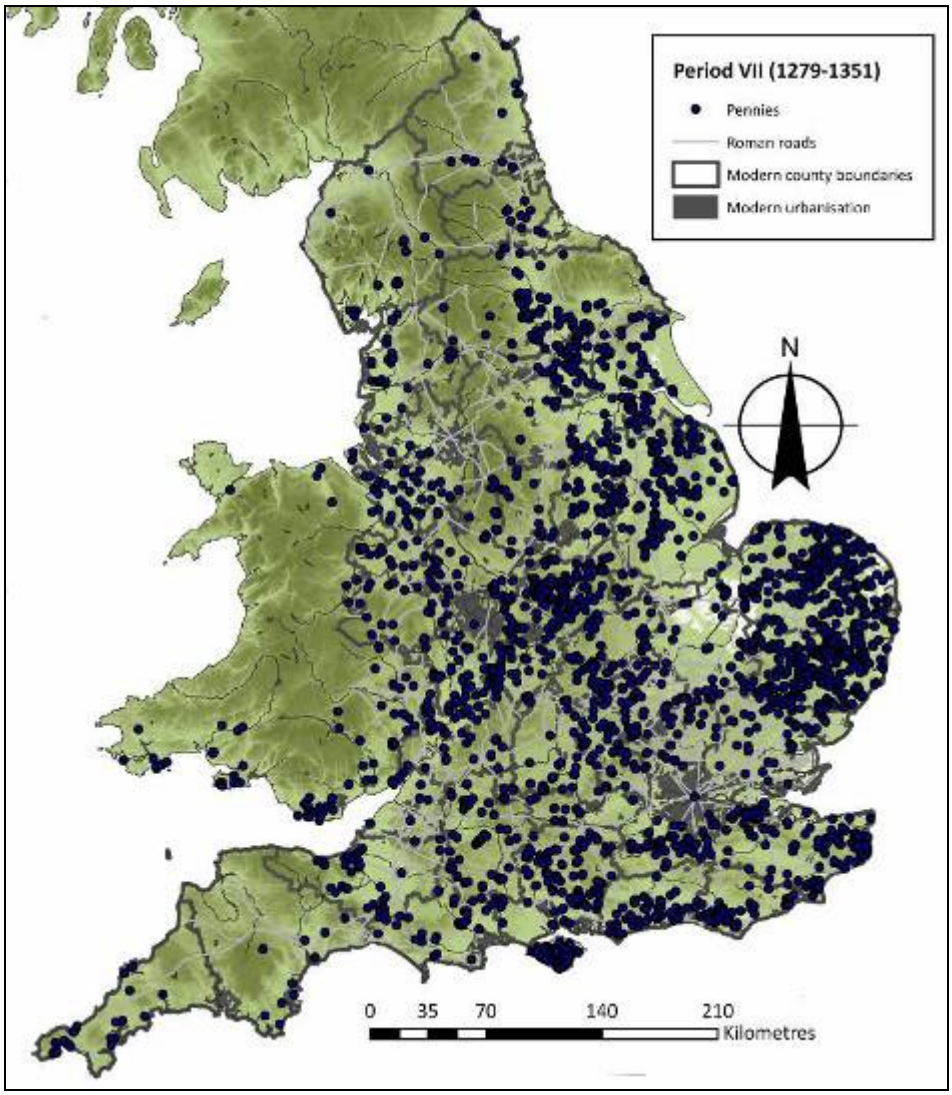
Map 5.30 South Western England PVIII.



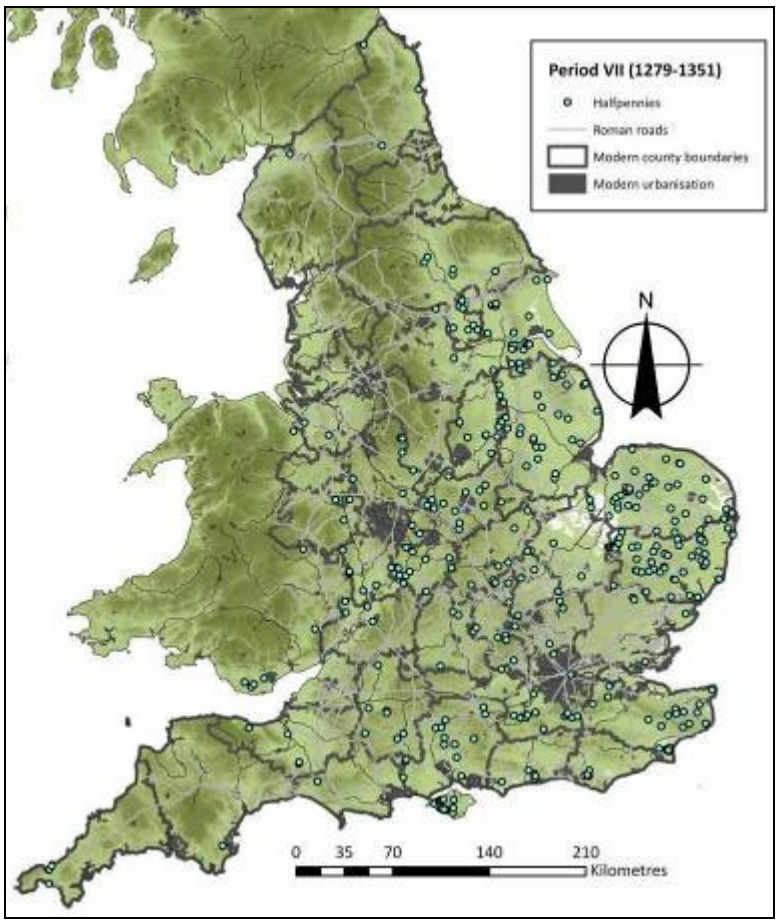
Map 5.31 South Western England PIX.



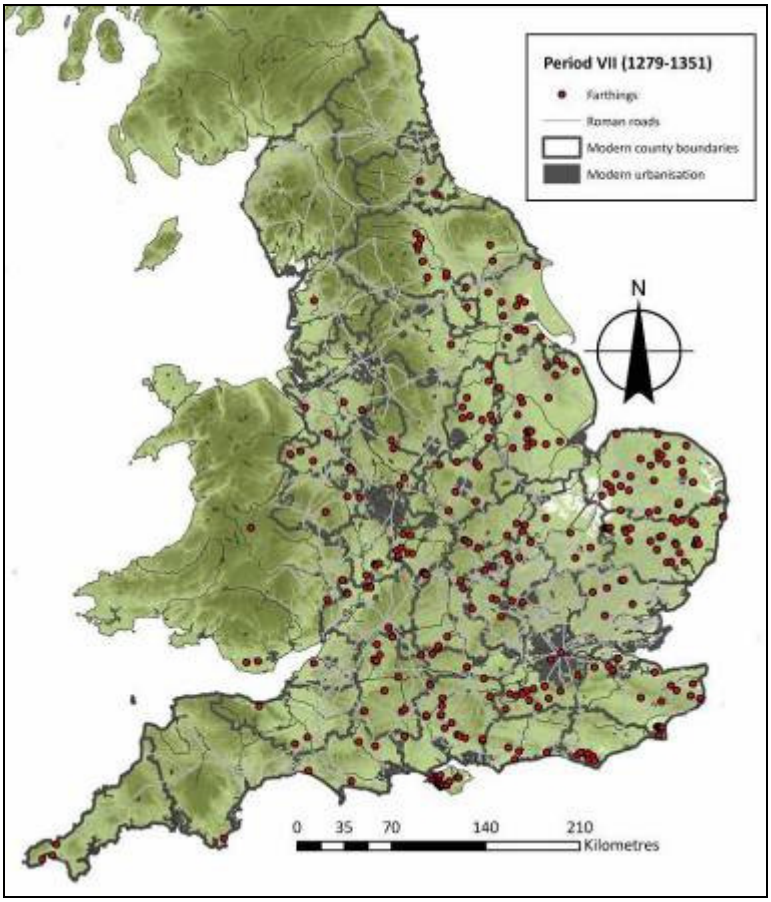
Map 5.32 South Western England PX.



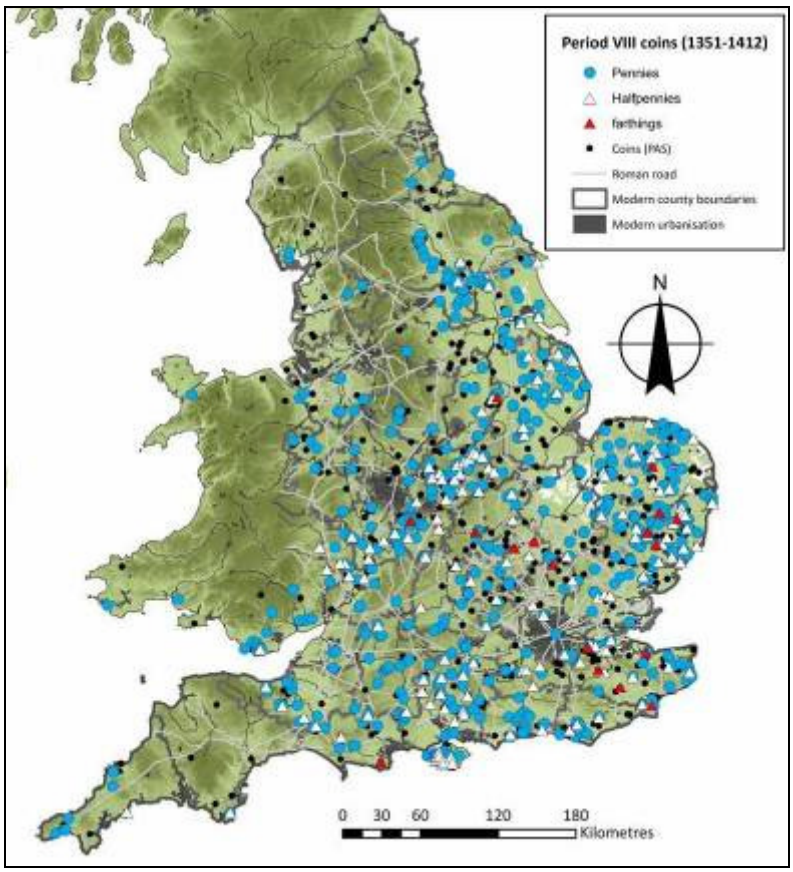
Map 5.33 Period VII distribution of pennies.



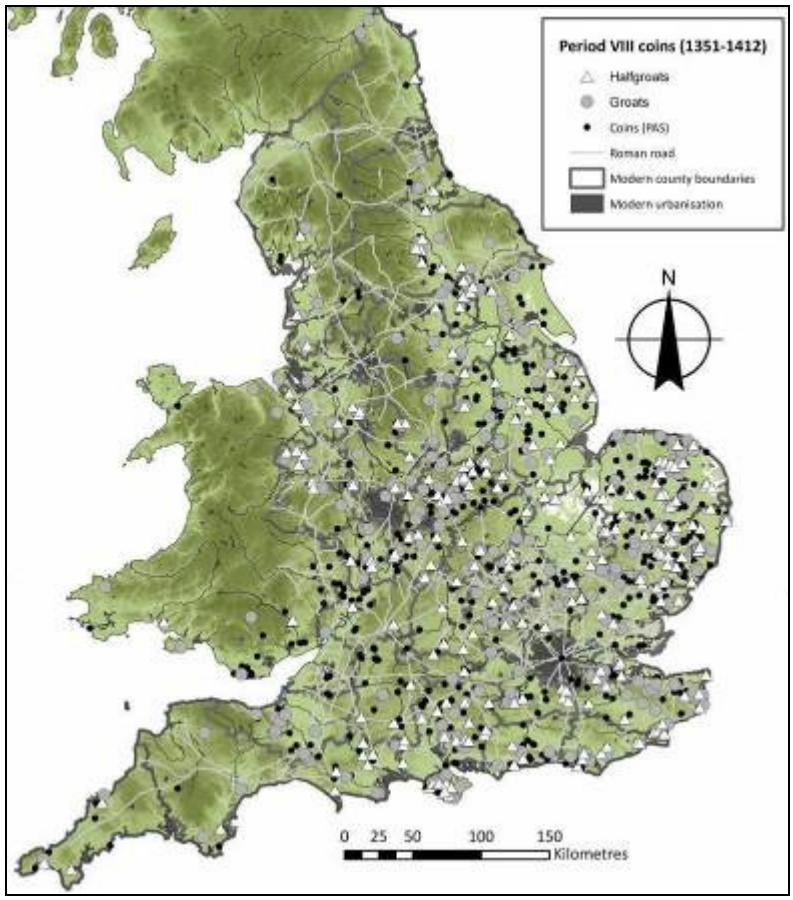
Map 5.34 Period VII distribution of halfpennies.



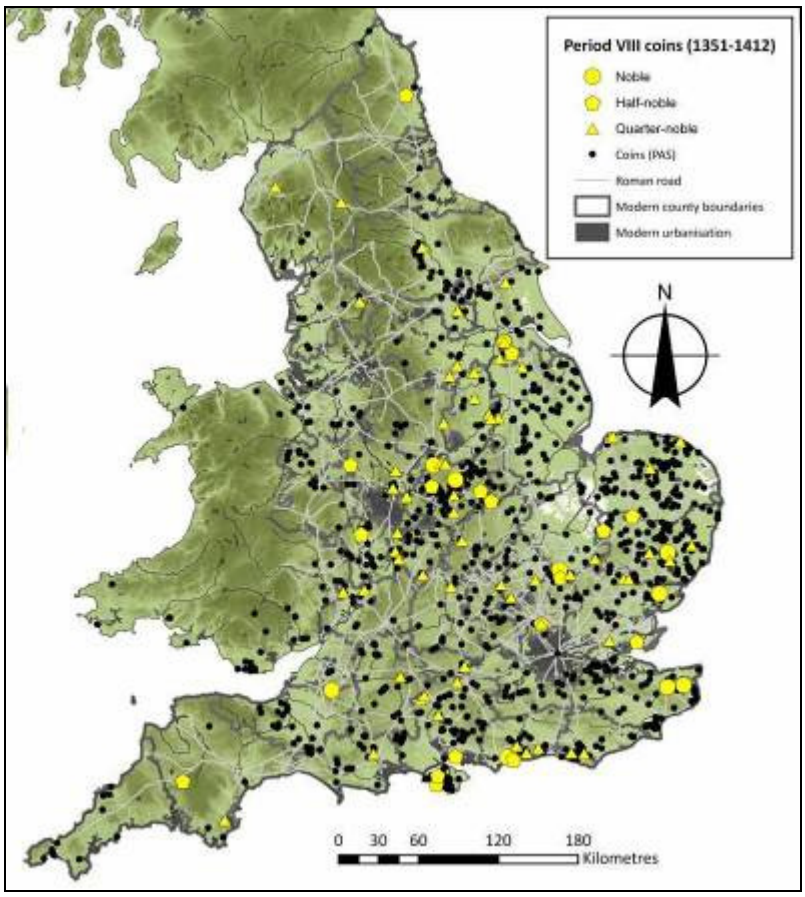
Map 5.35 Period VII distribution of farthings.



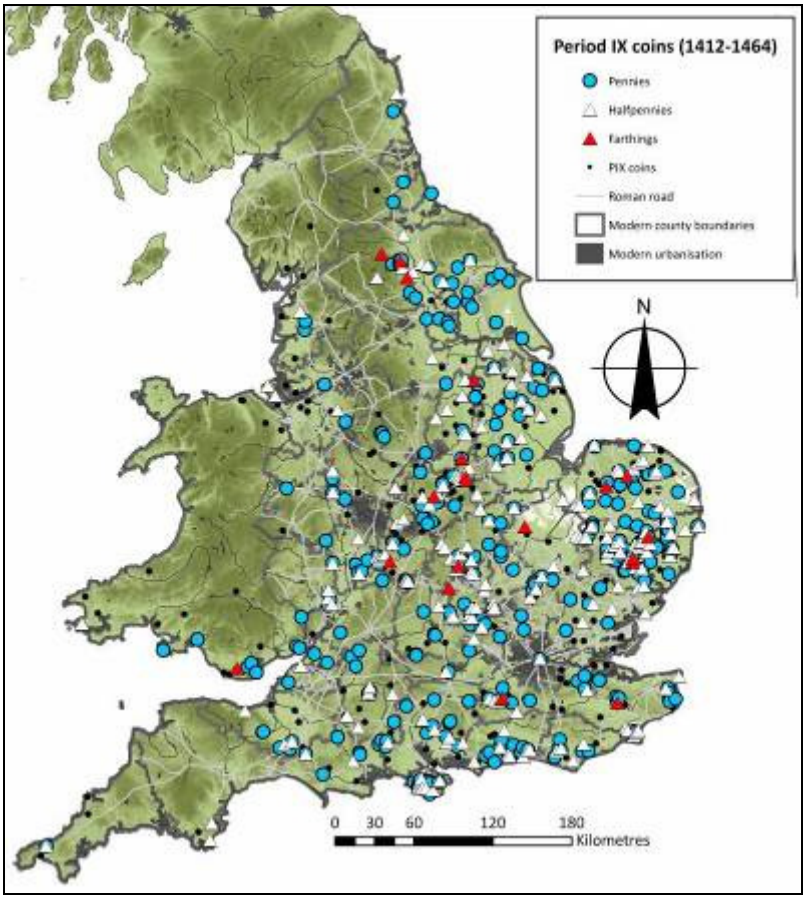
Map 5.36 Period VIII distribution of small silver coins.



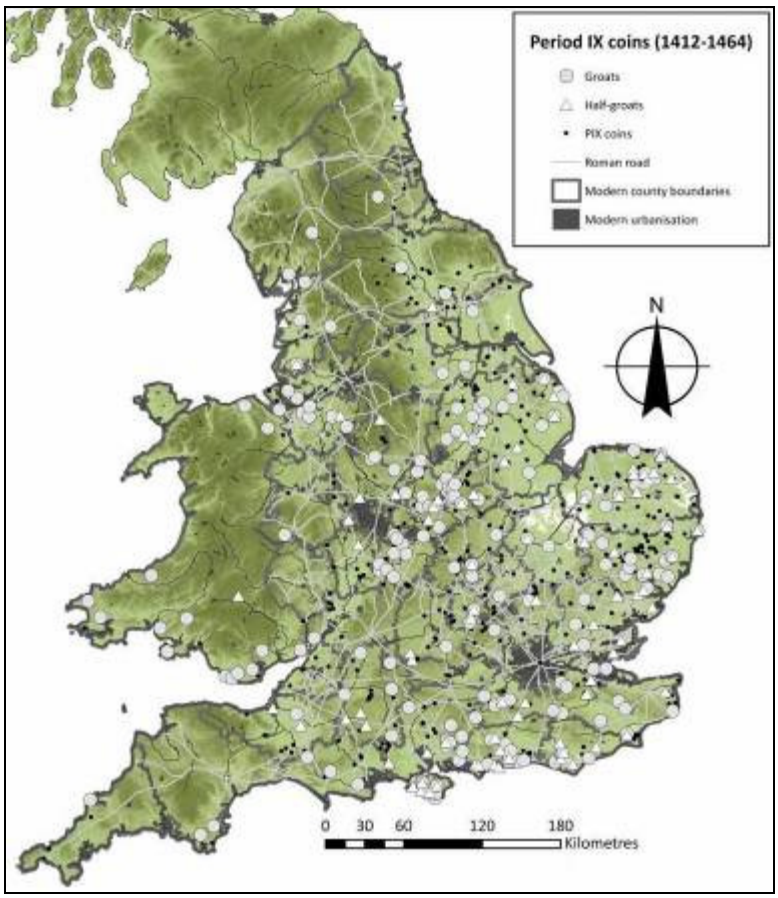
Map 5.37 Period VIII distribution of large silver coins.



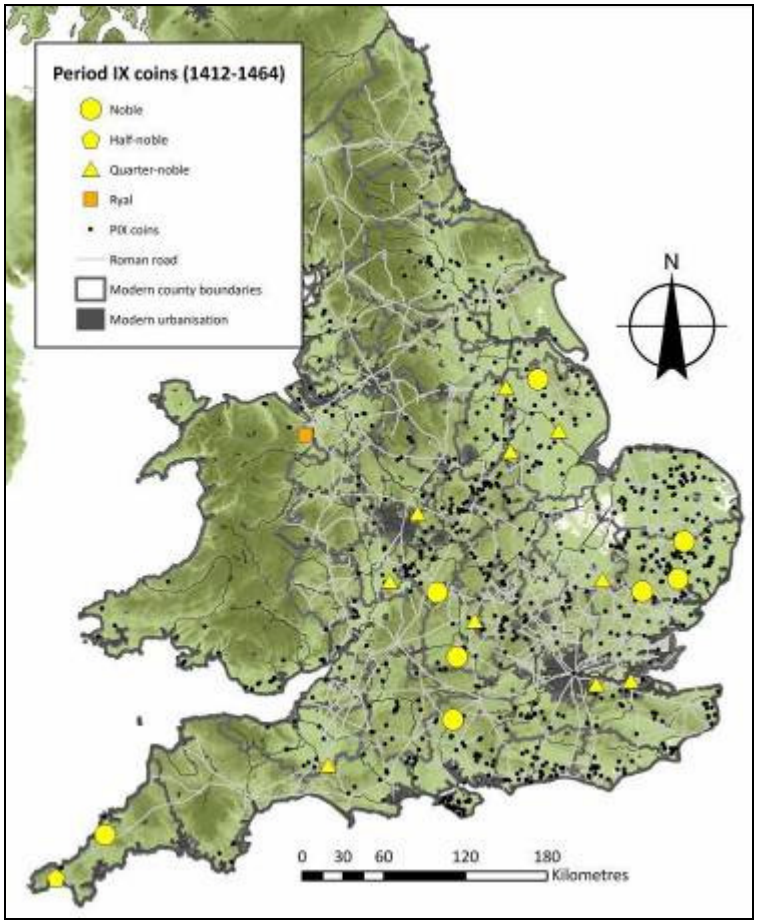
Map 5.38 Period VIII distribution of gold coins



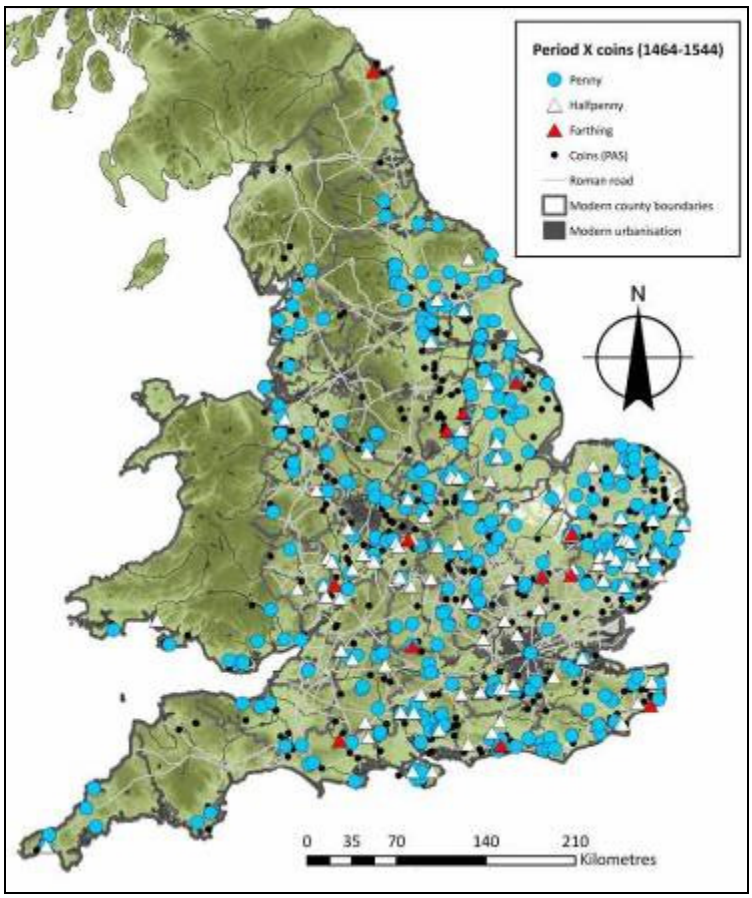
Map 5.39 Period IX distribution of small silver coins.



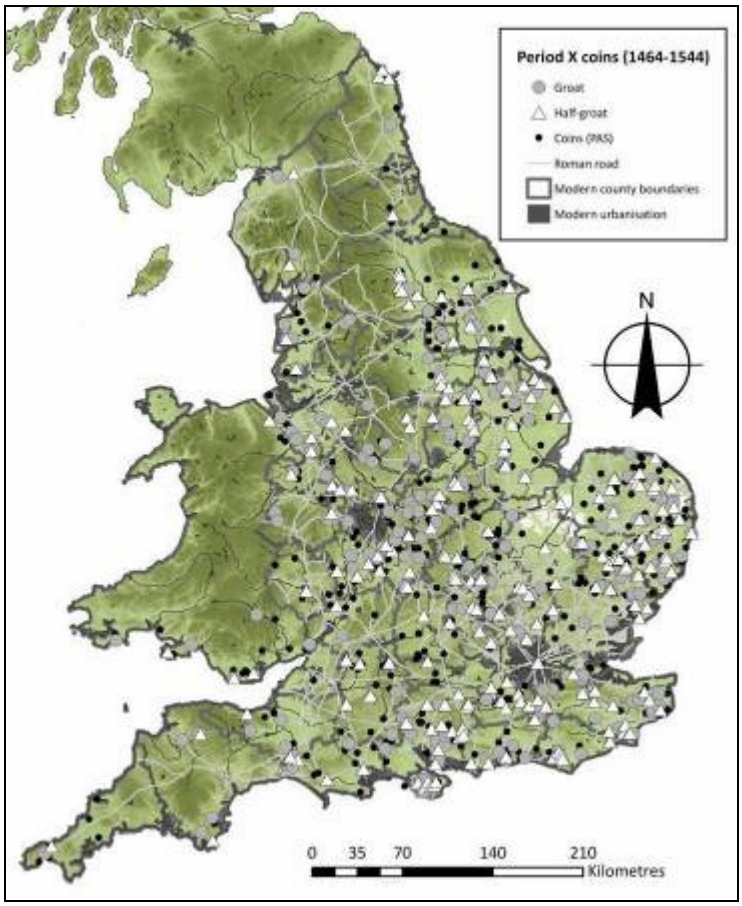
Map 5.40 Period IX distribution of large silver coins.



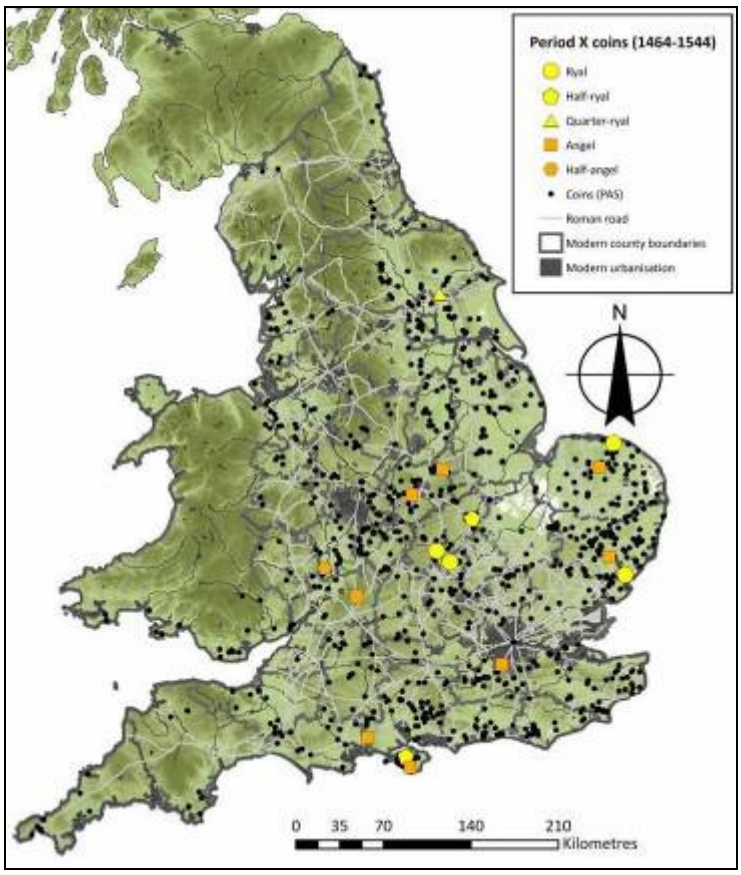
Map 5.41 Period IX distribution of gold coins



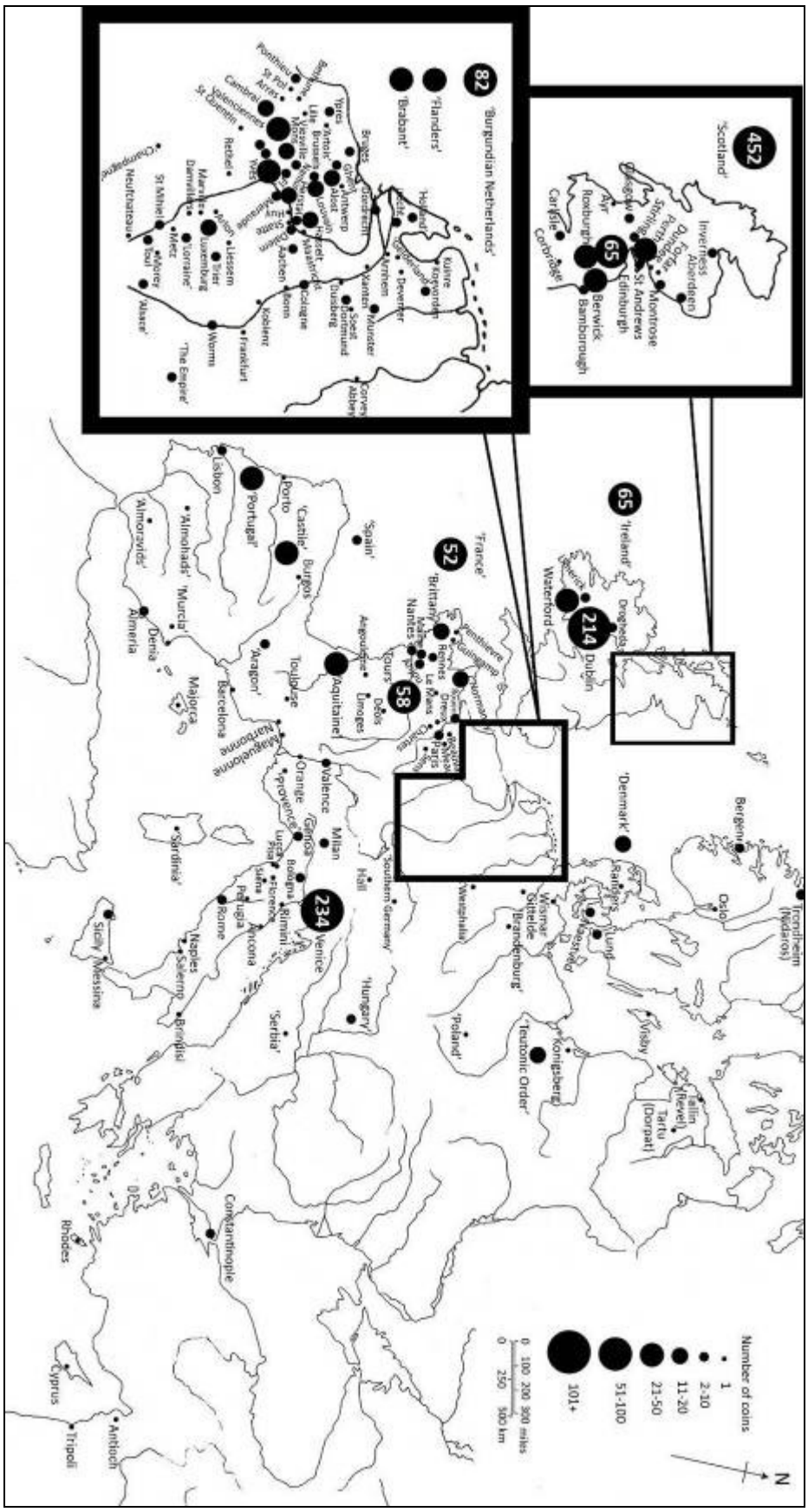
Map 5.42 Period X distribution of small silver coins.



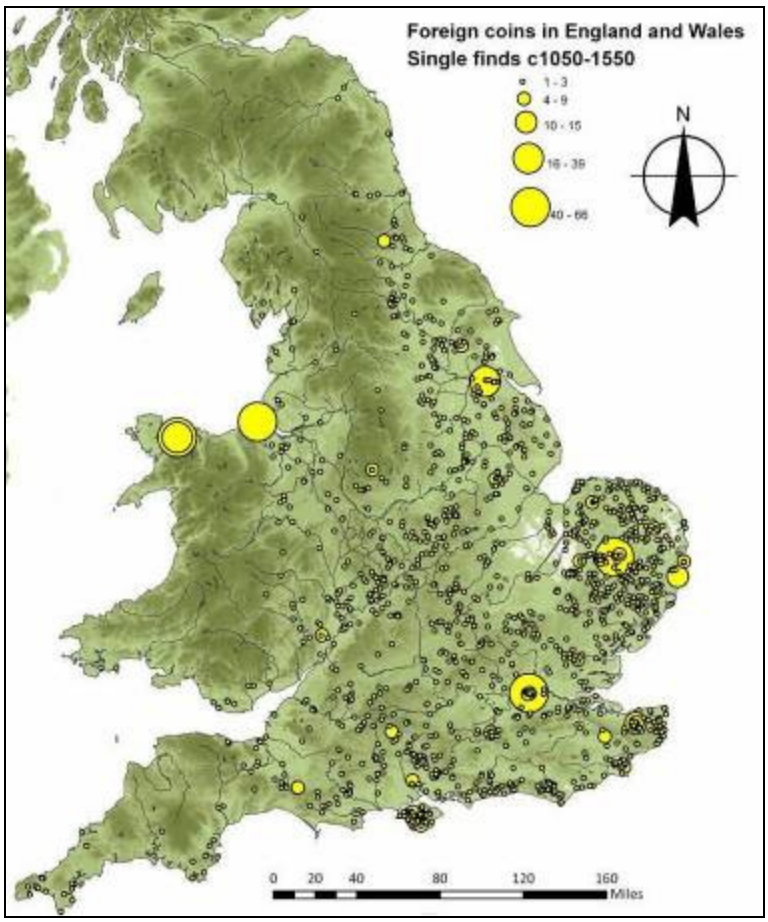
Map 5.43 Period X distribution of large silver coins.



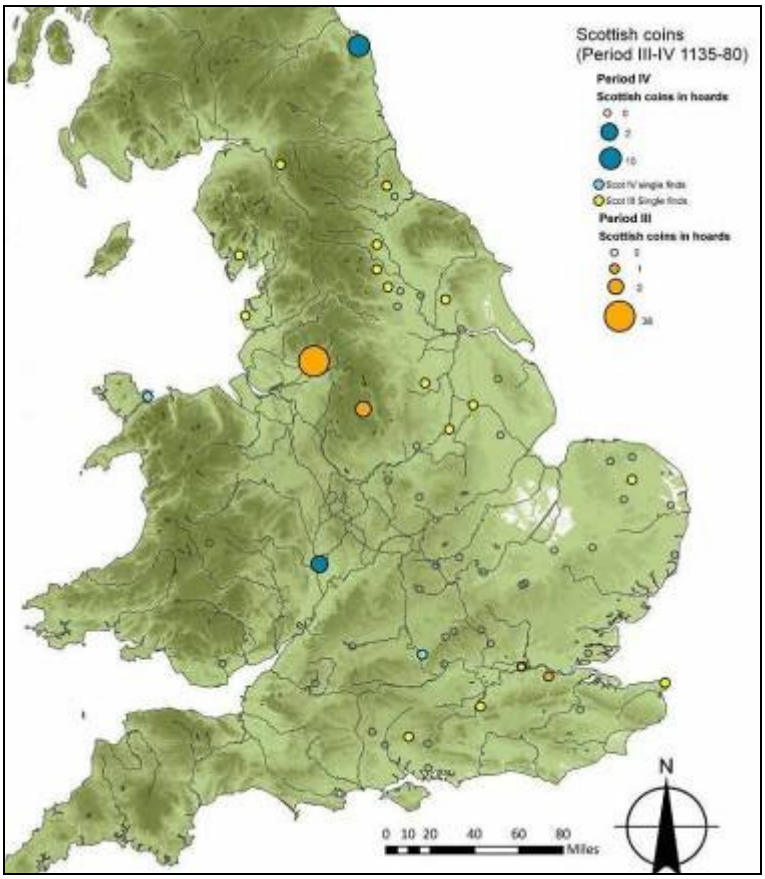
Map 5.44 Period X distribution of gold coins



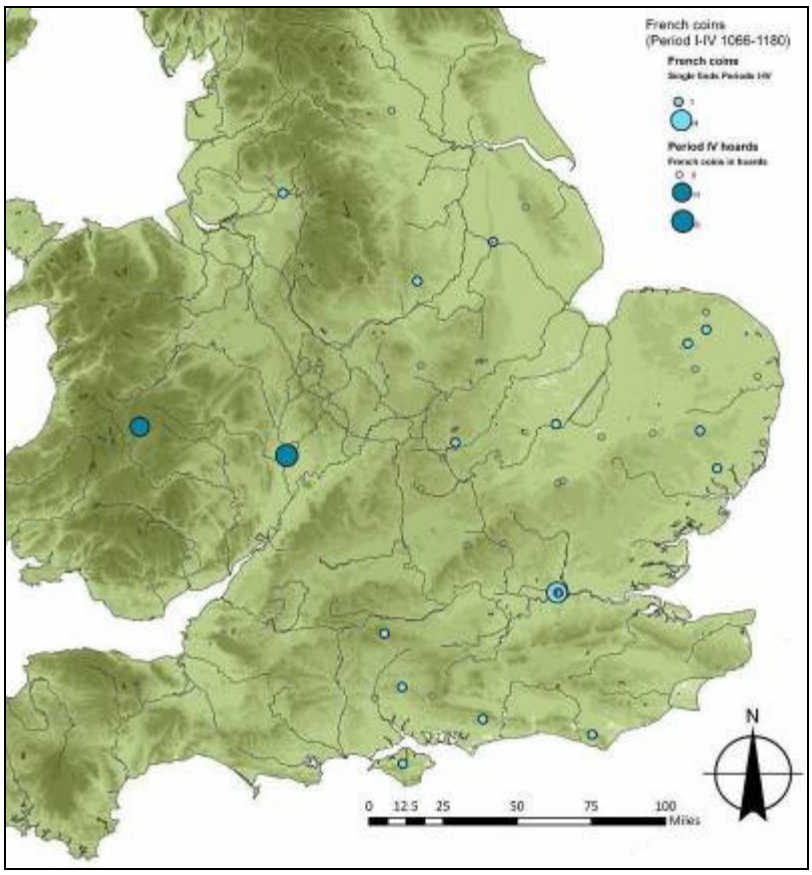
Map 6.1 Single finds of coins from European mints found in England and Wales.



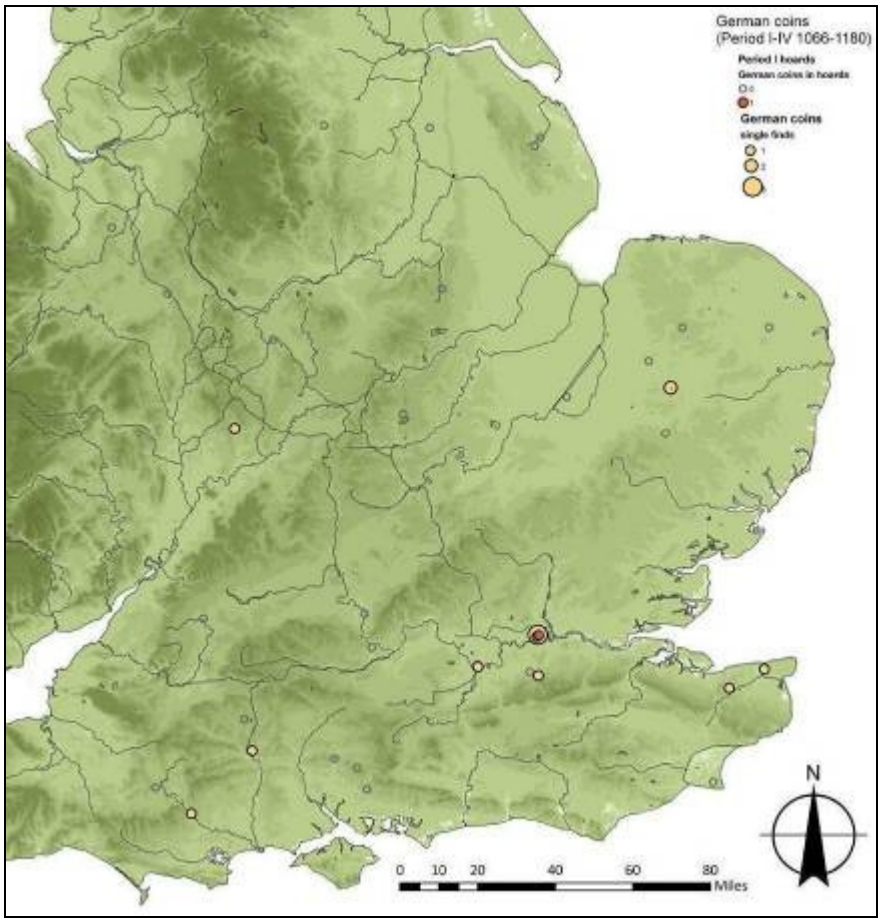
Map 6.2 Distribution of foreign coins in England and Wales.



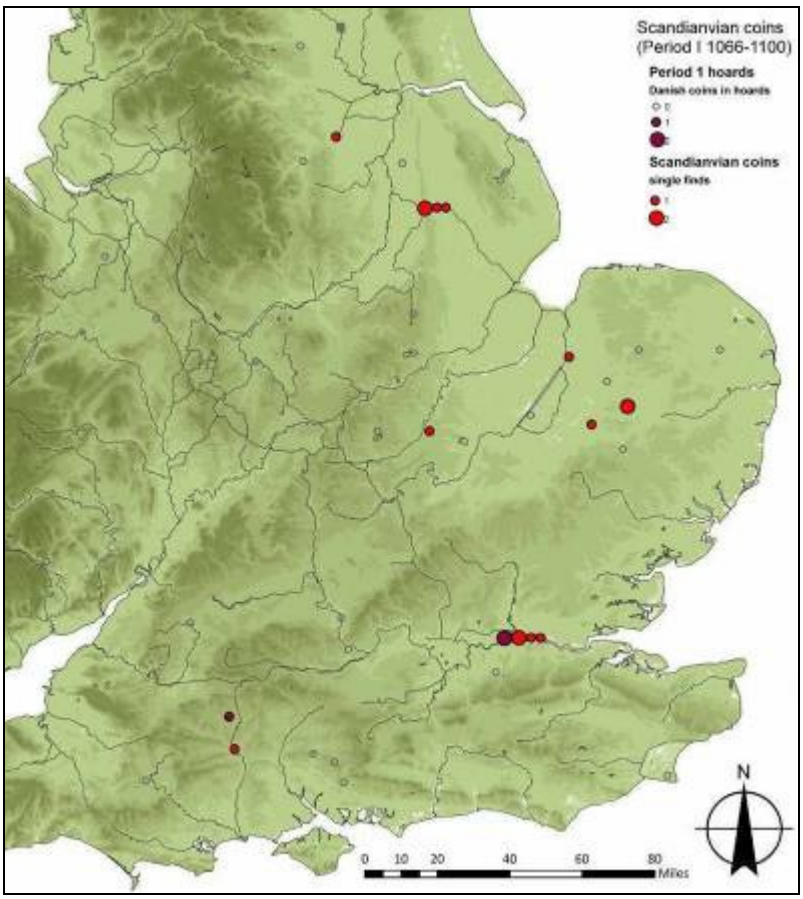
Map 6.3 Scottish single finds and hoard coins from Periods III and IV (1135-80).



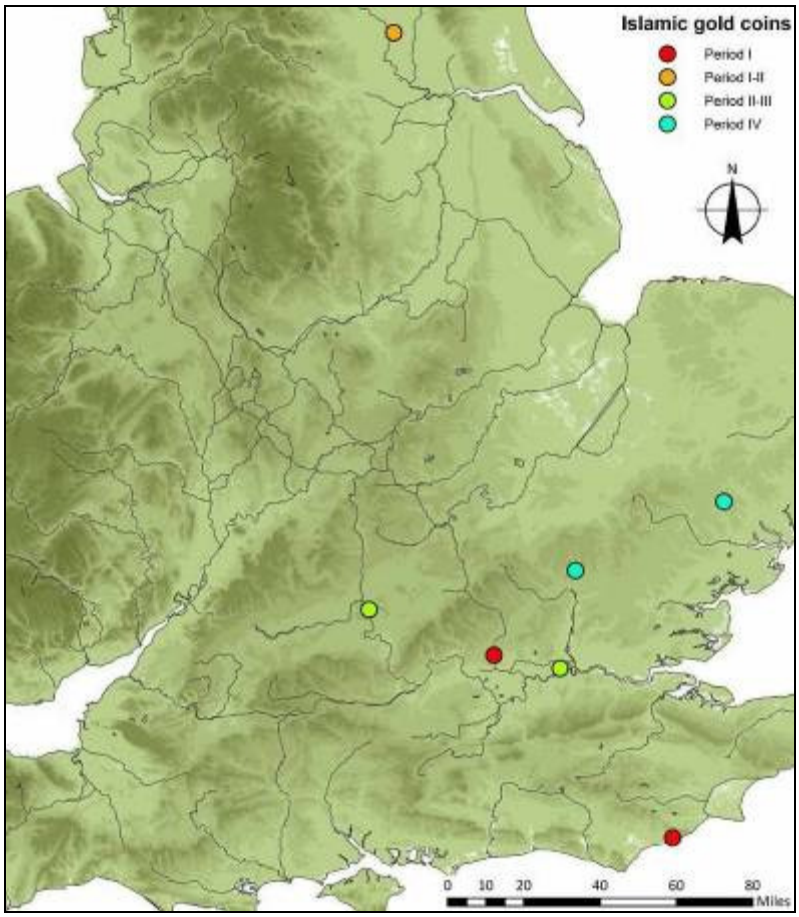
Map 6.4 French single finds and hoard coins. Periods I-IV (1066-1180)



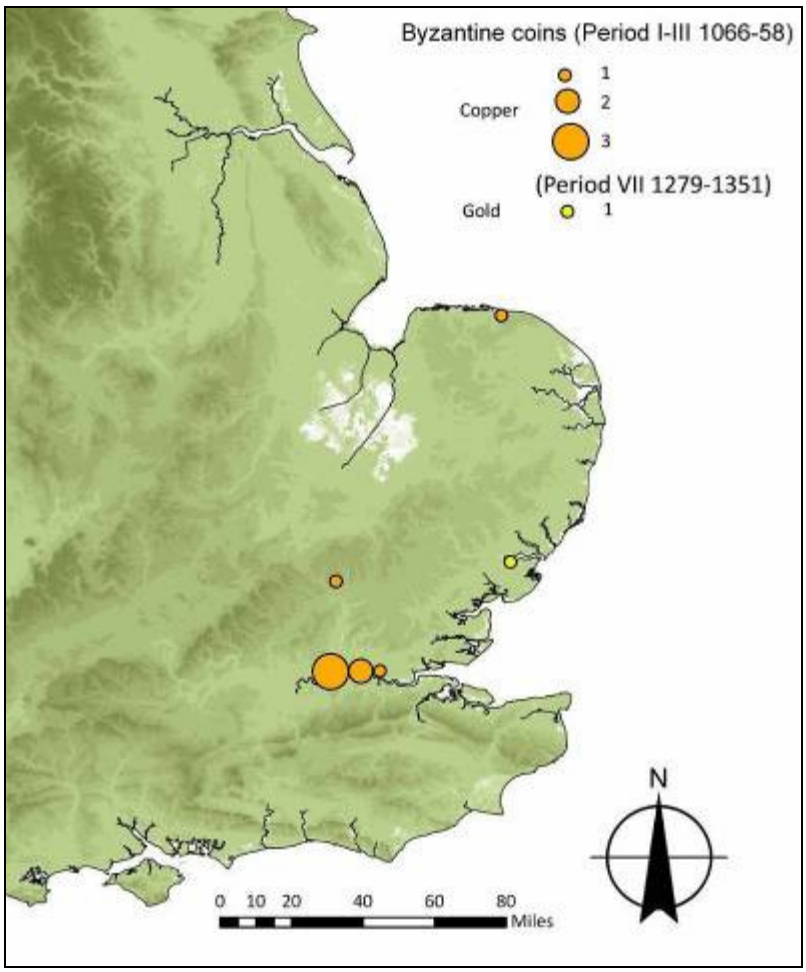
Map 6.5 German coins (Periods I-IV - 1066-1180).



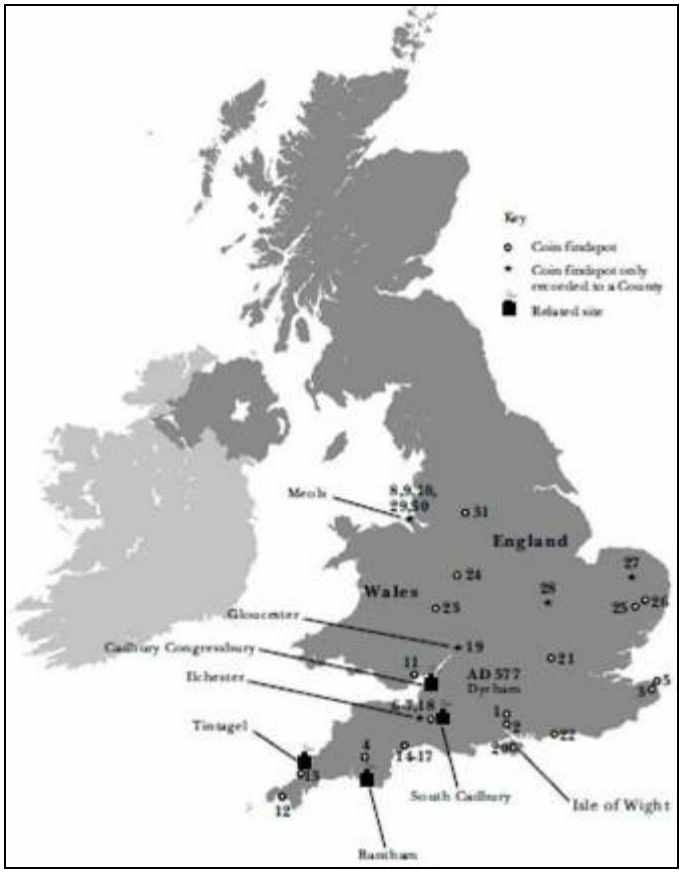
Map 6.6 Scandinavian coins from Period I (1066-1100).



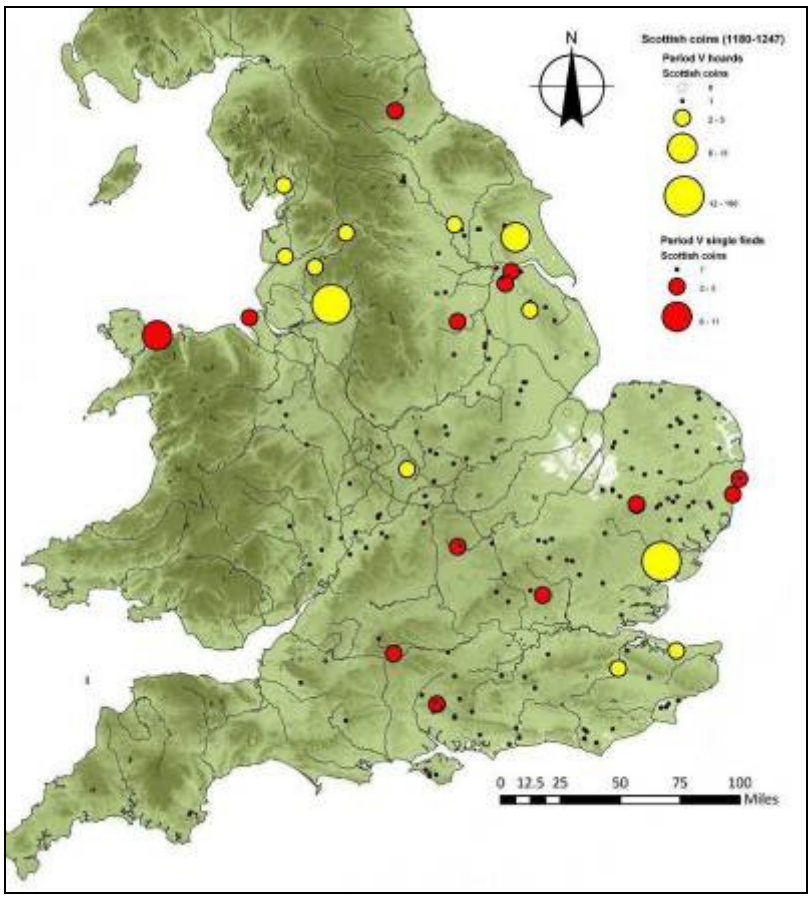
Map 6.7 Islamic gold coins found in England.



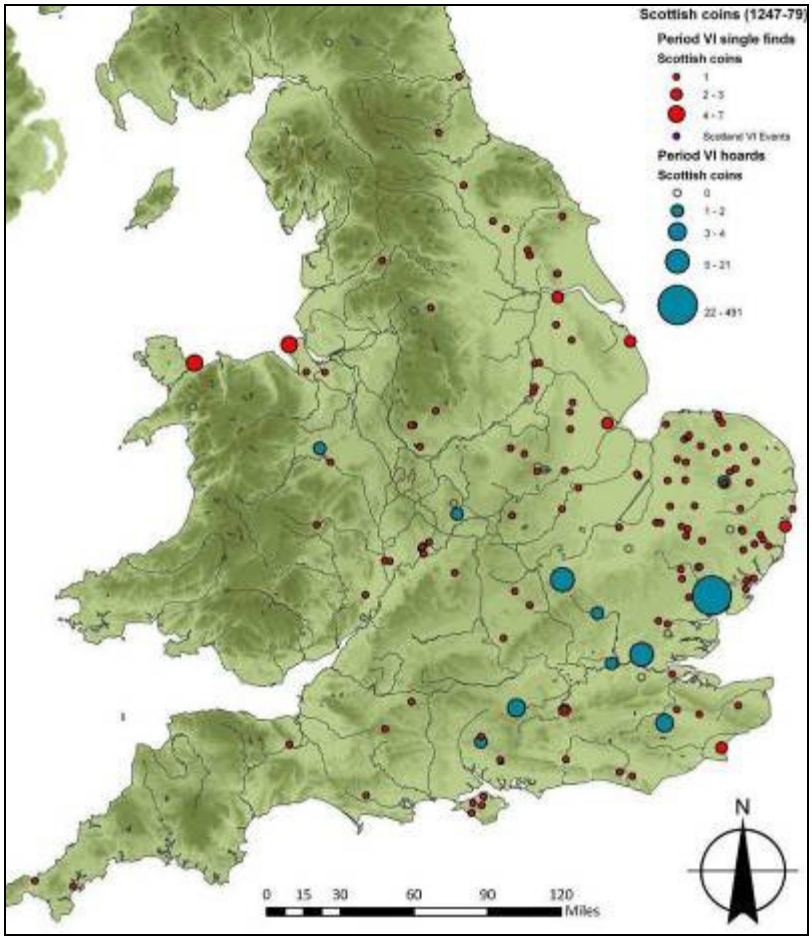
Map 6.8 Byzantine coins from England.



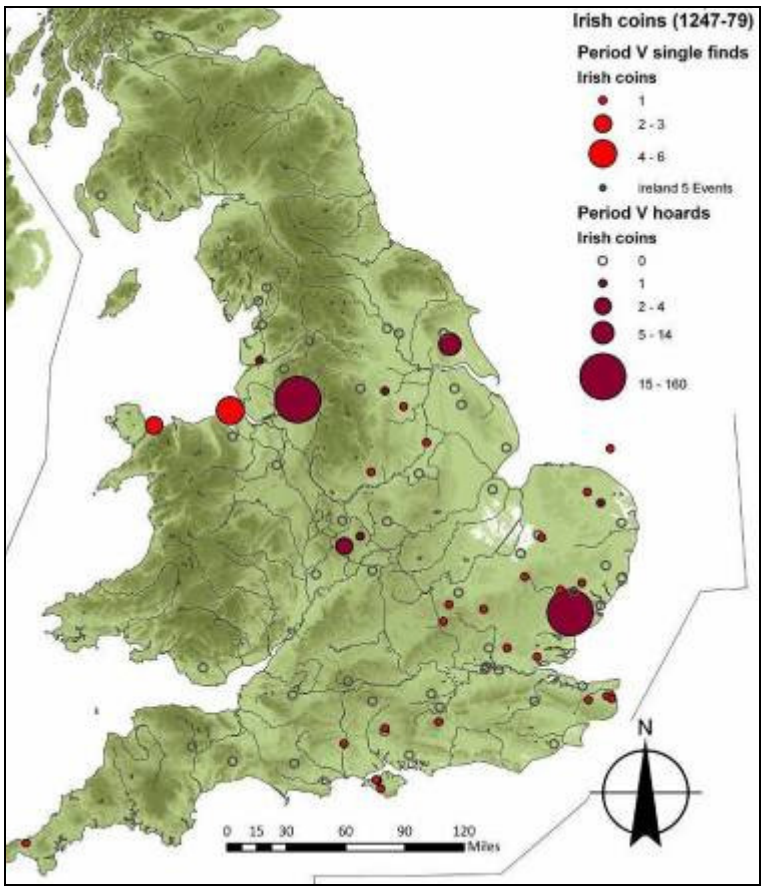
Map 6.9 Early Byzantine coins from England (Moorhead 2007).



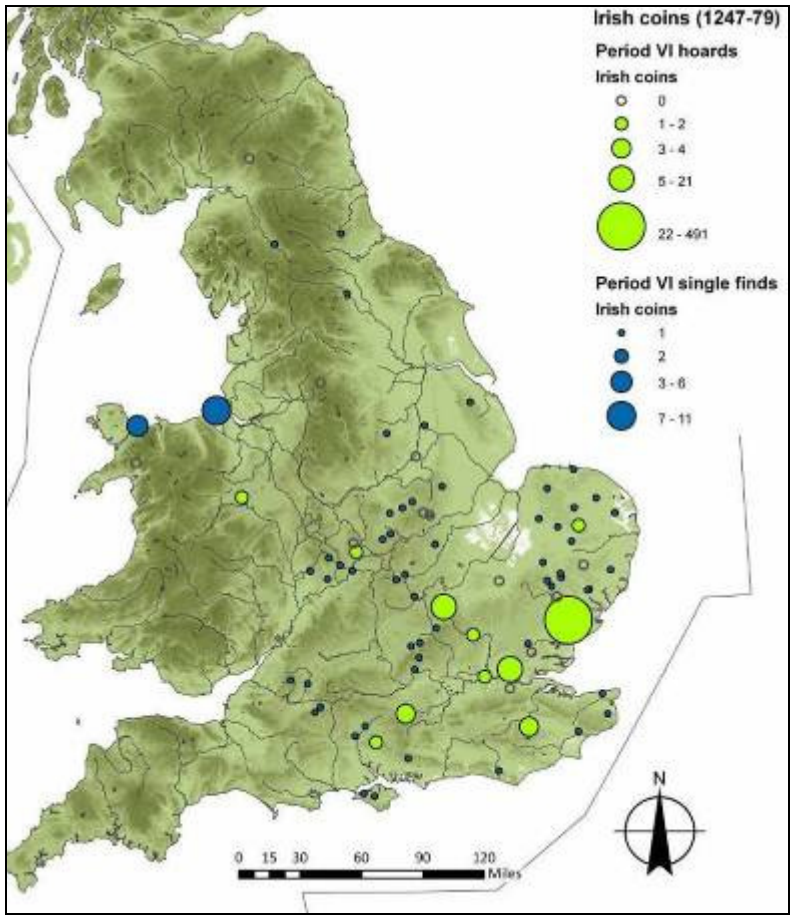
Map 6.10 Period V Scottish coins.



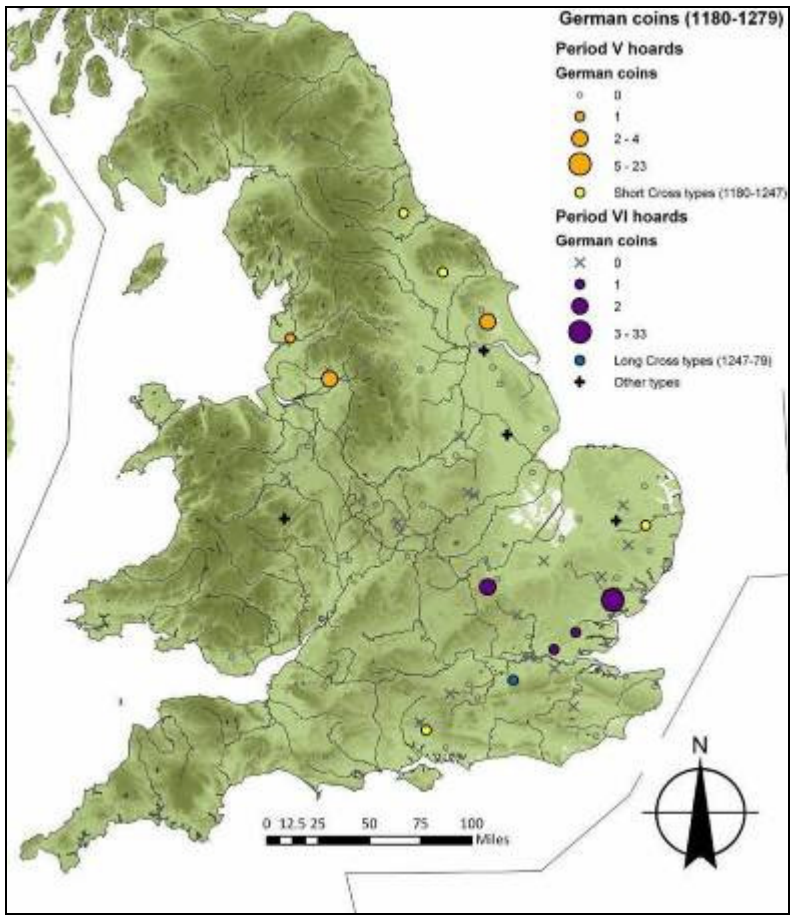
Map 6.11 Period VI Scottish coins.



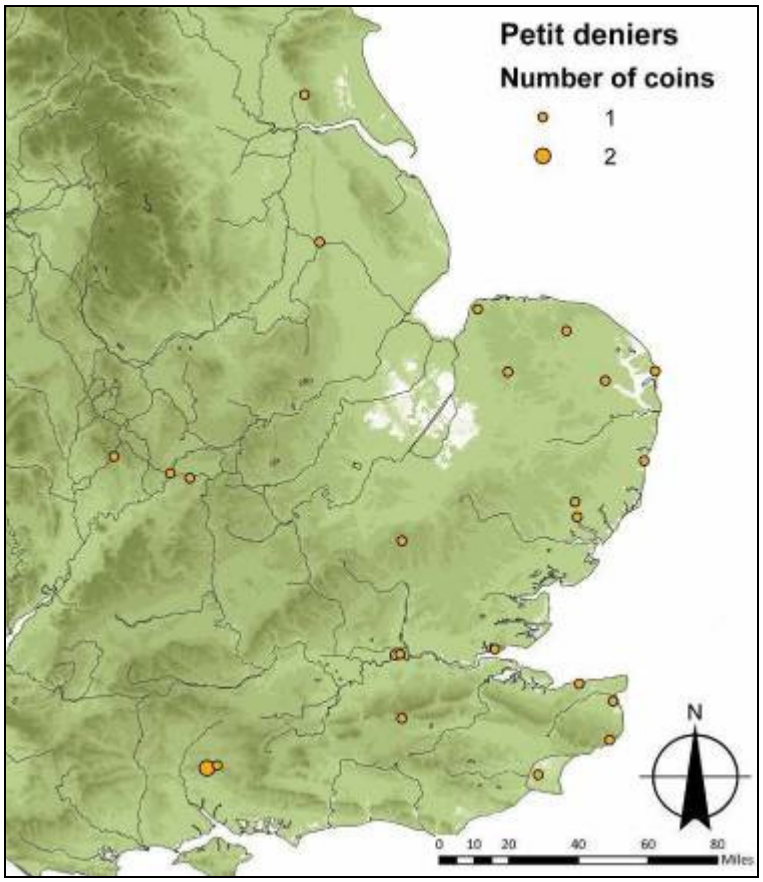
Map 6.12 Period V Irish coins.



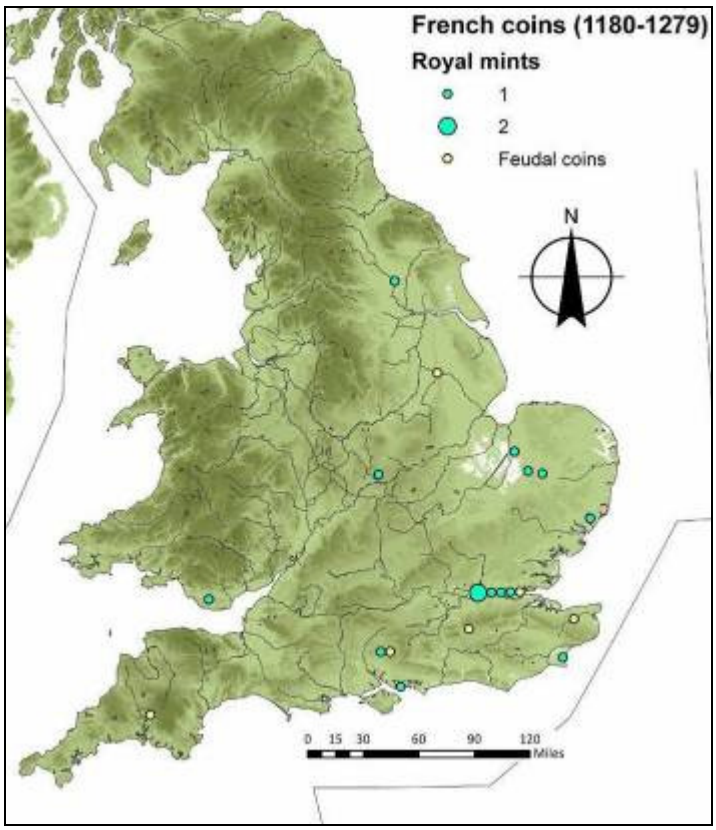
Map 6.13 Period VI Irish coins.



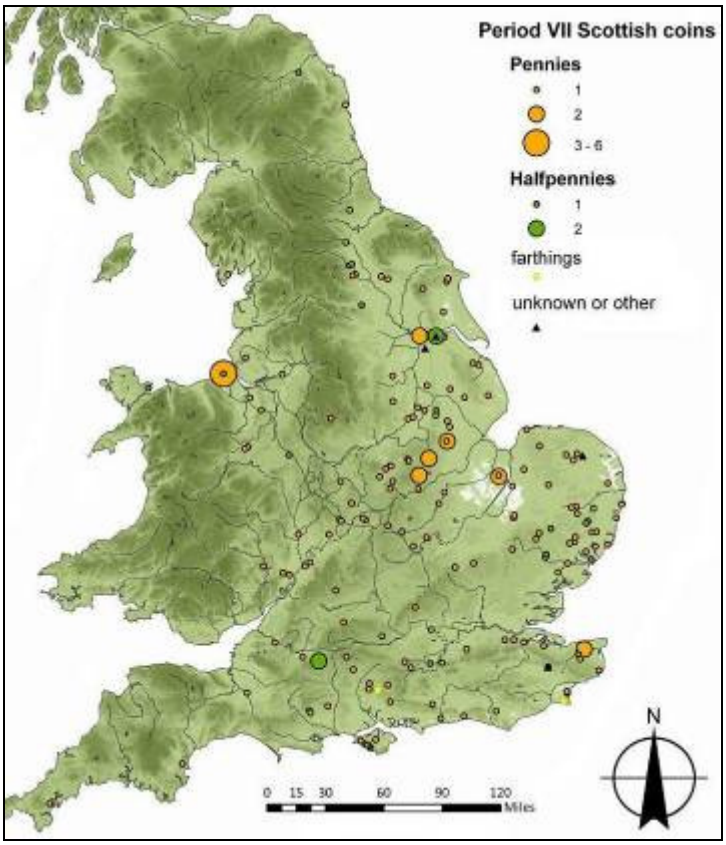
Map 6.14 Period V and VI continental imitations.



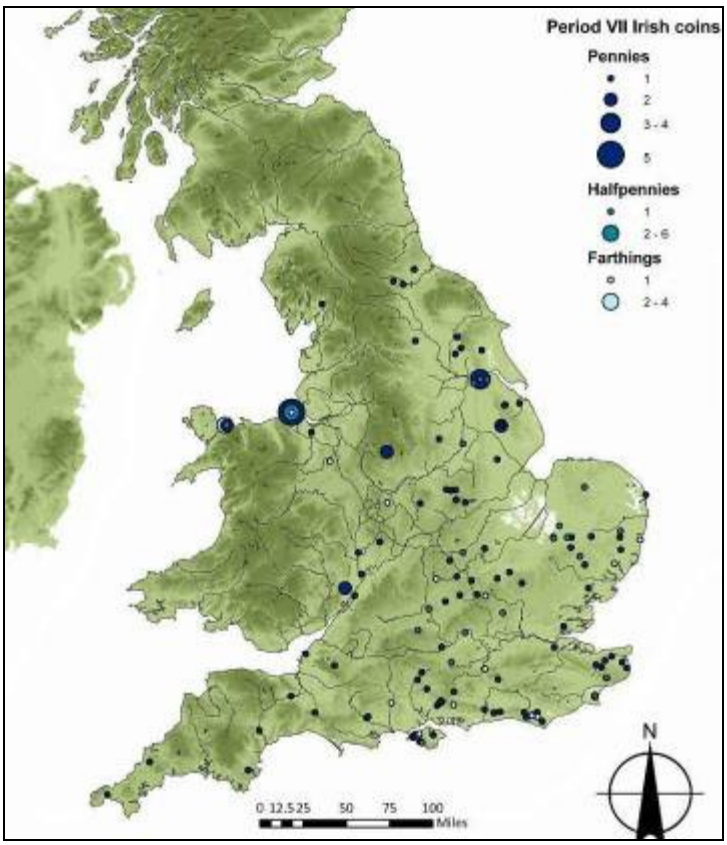
Map 6.15 Petit deniers found in England.



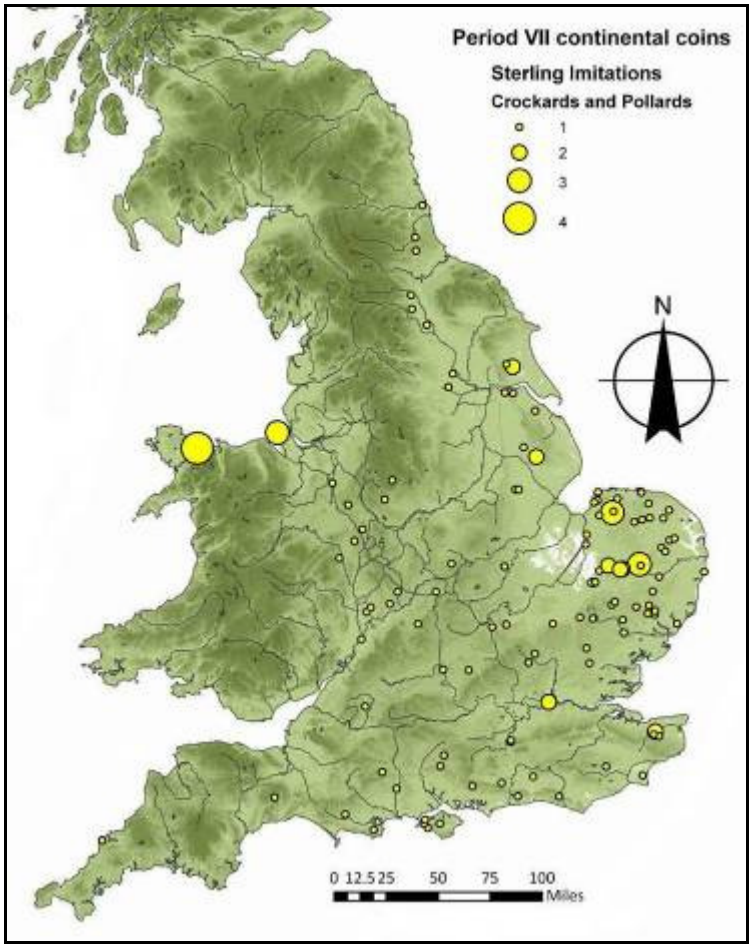
Map 6.16 French coins found in England.



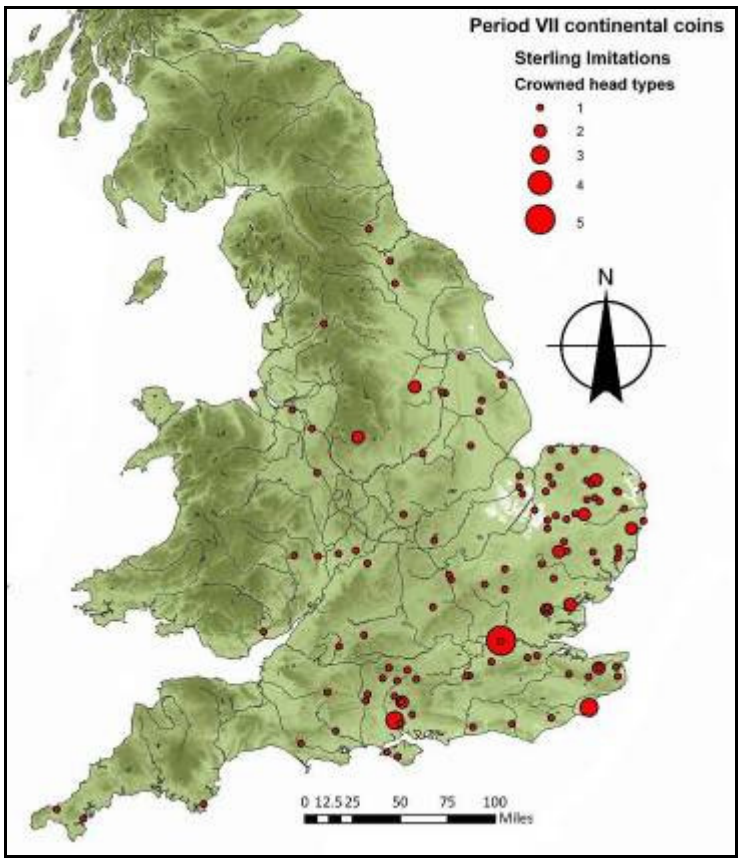
Map 6.18 Scottish Period VII single finds.



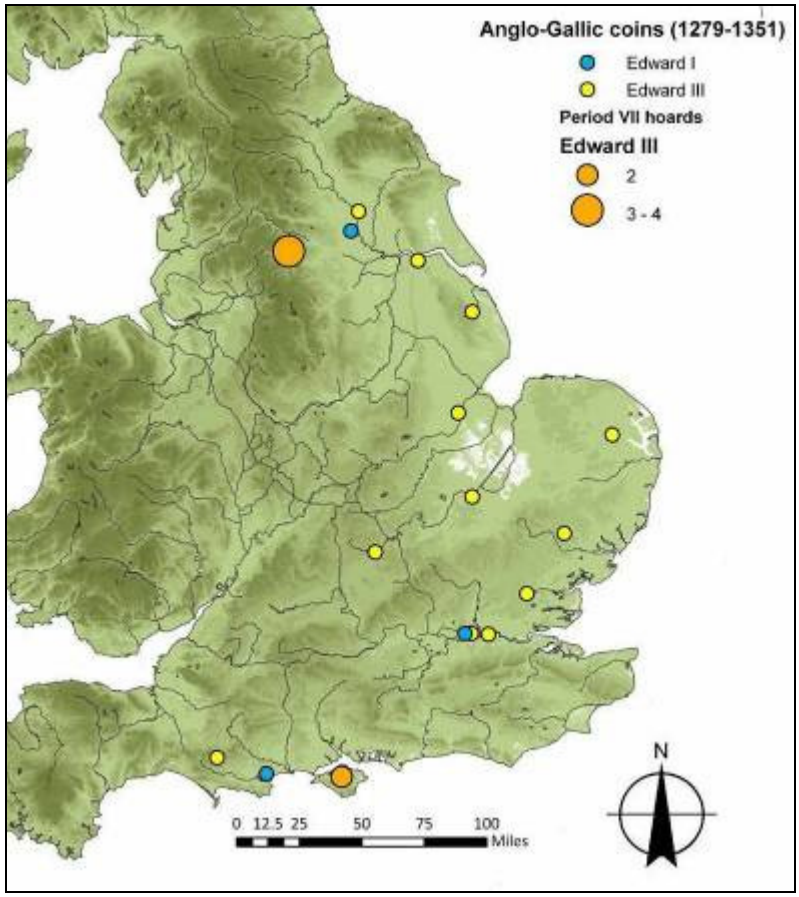
Map 6.19 Irish Period VII coins in England and Wales.



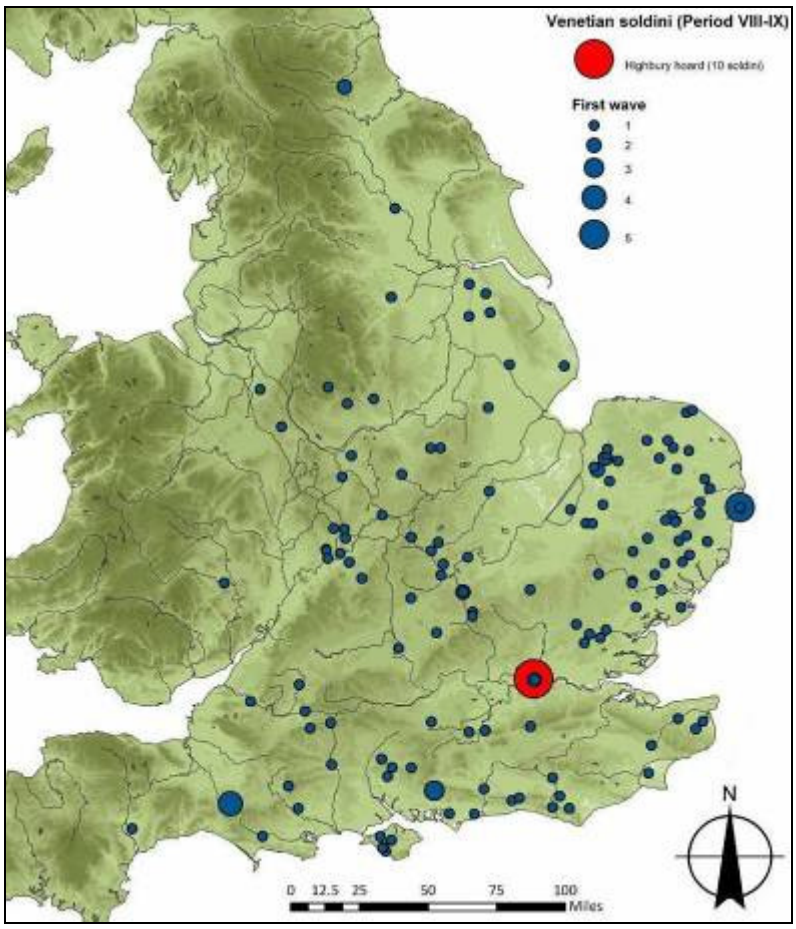
Map 6.20 Crockards and pollards distribution.



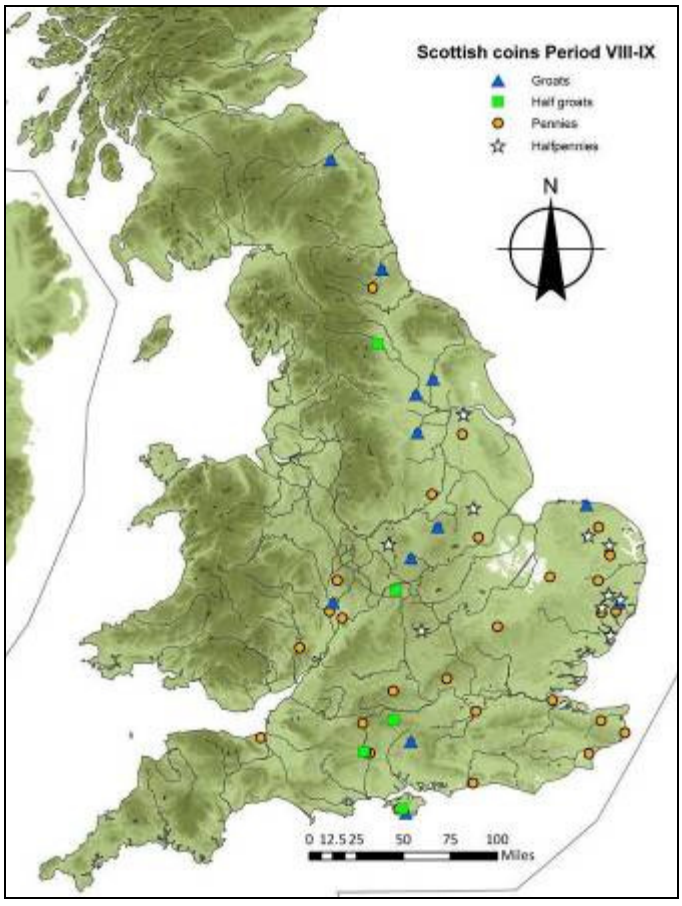
Map 6.21 Crowned head sterling distribution.



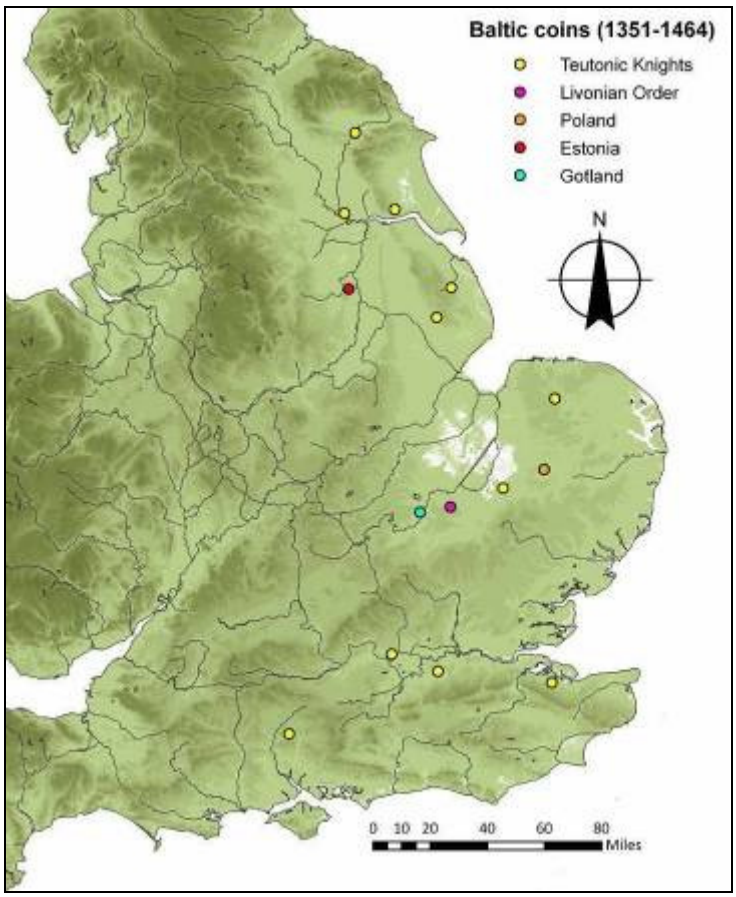
Map 6.22 Period VII Anglo-Gallic coins.



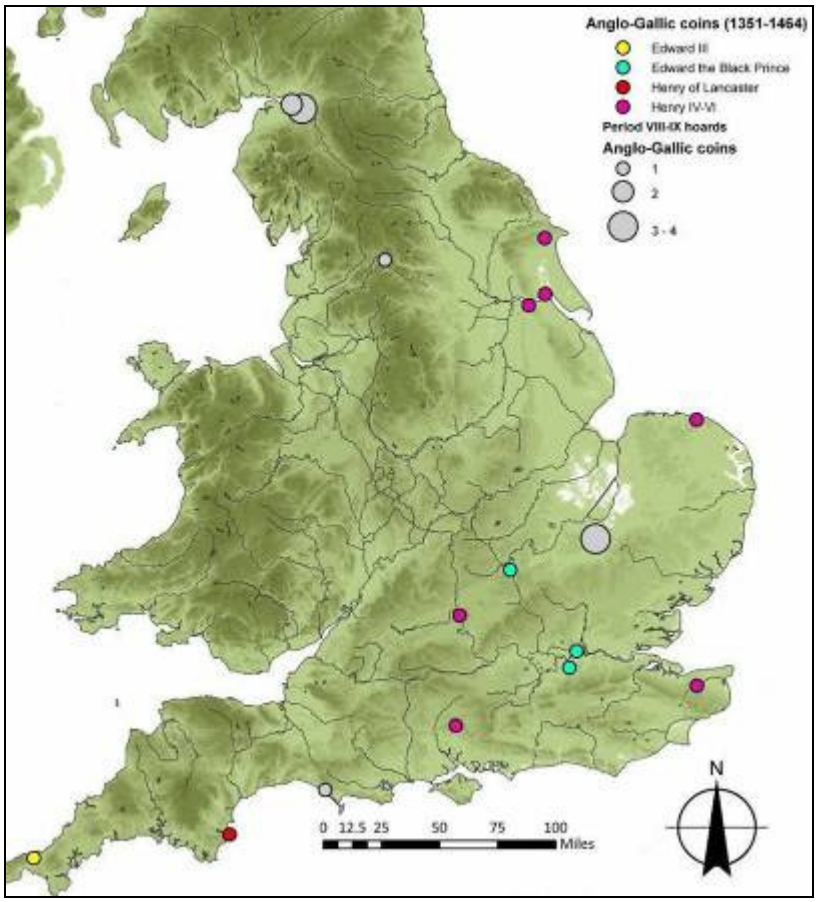
Map 6.23 Venetian soldini, first wave finds (c1400-15).



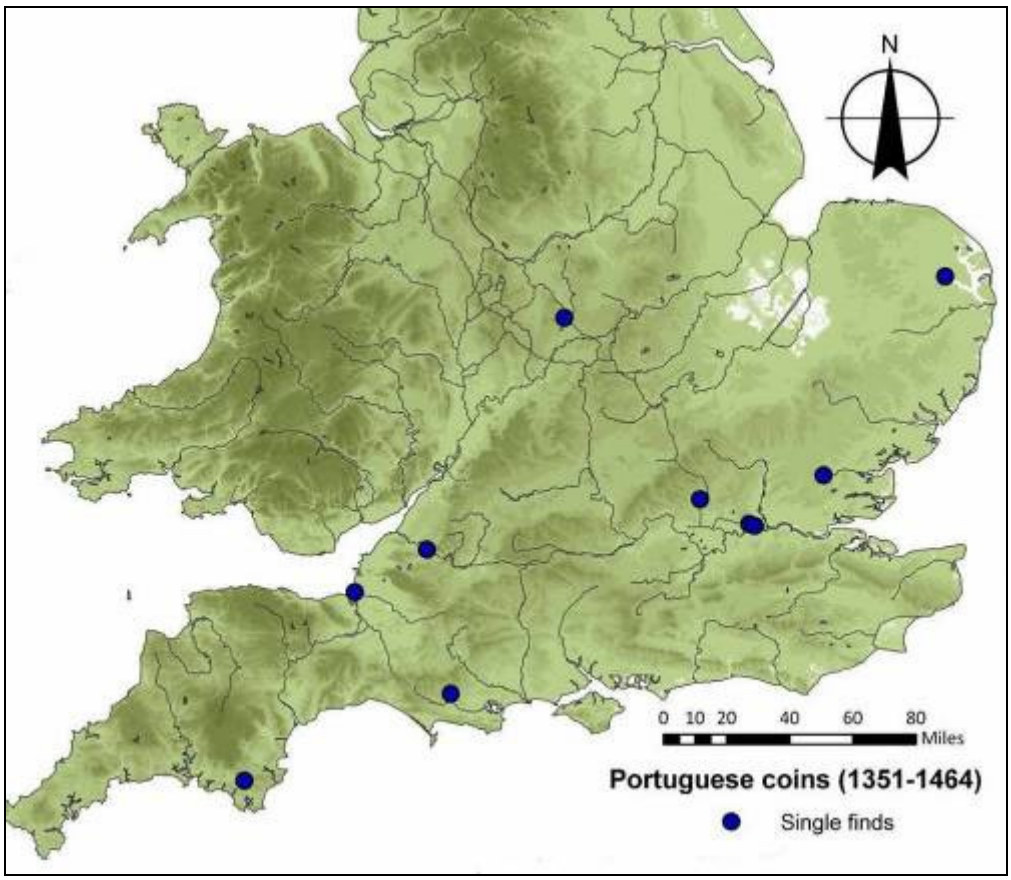
Map 6.24 Period VIII-IX Scottish coins.



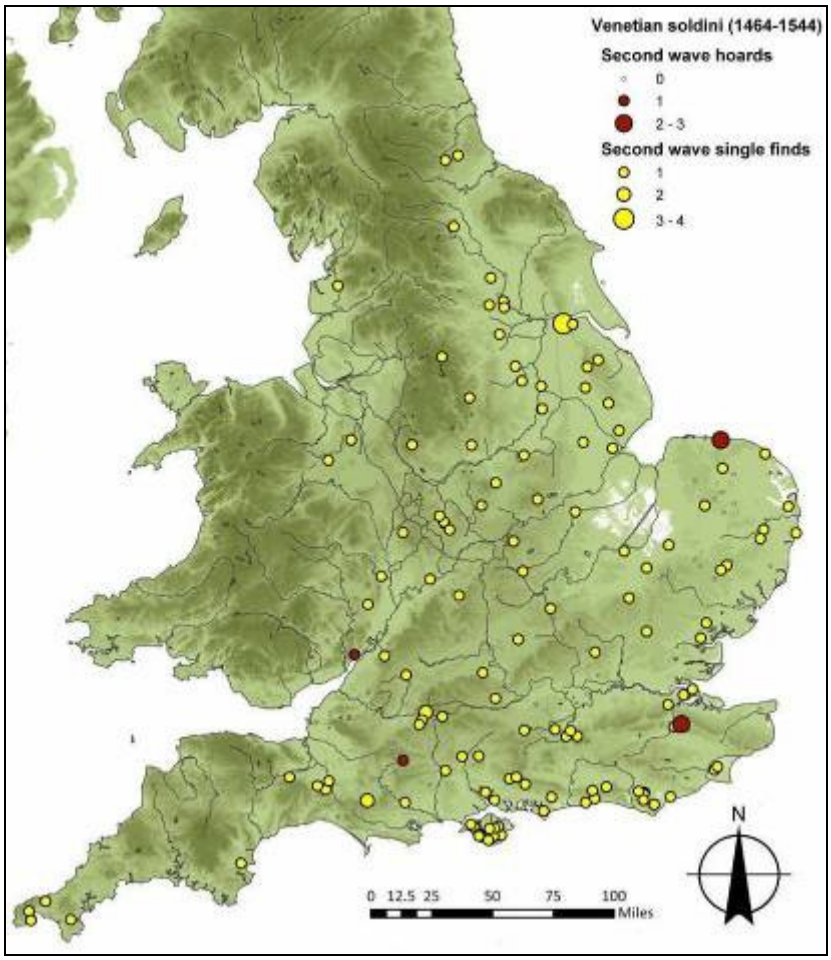
Map 6.25 Period VIII-IX Baltic coins.



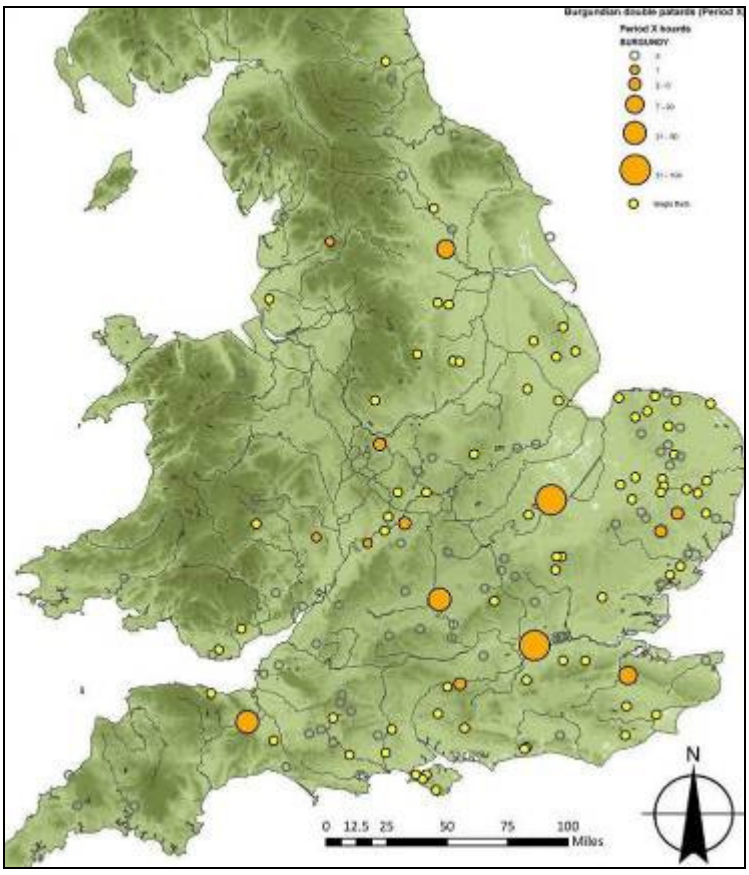
Map 6.26 Anglo-Gallic single finds distribution



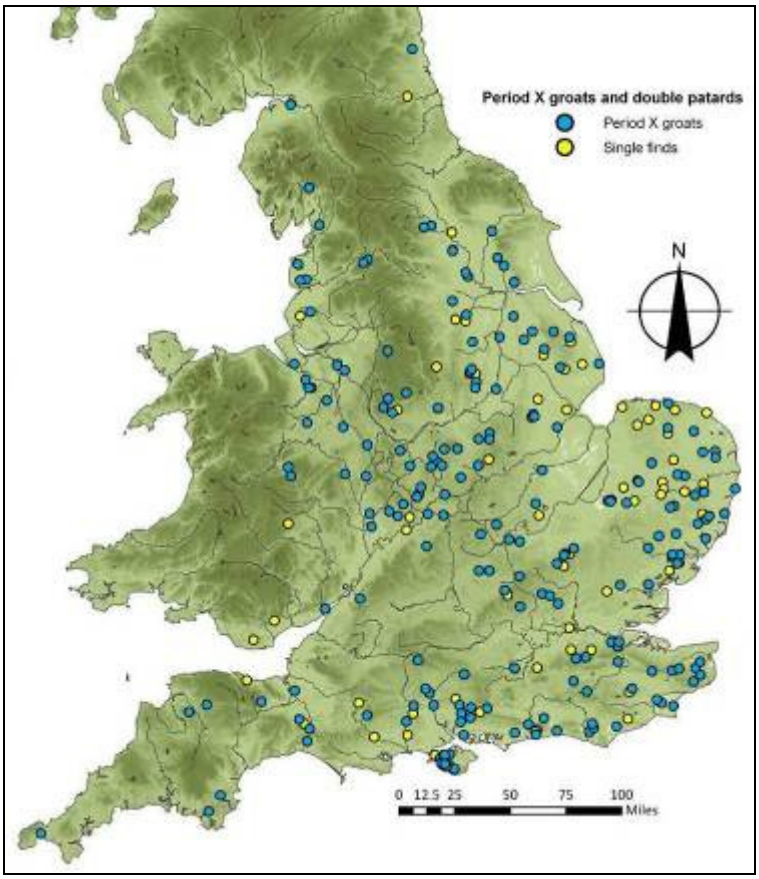
Map 6.27 Period VIII-IX Portuguese coins.



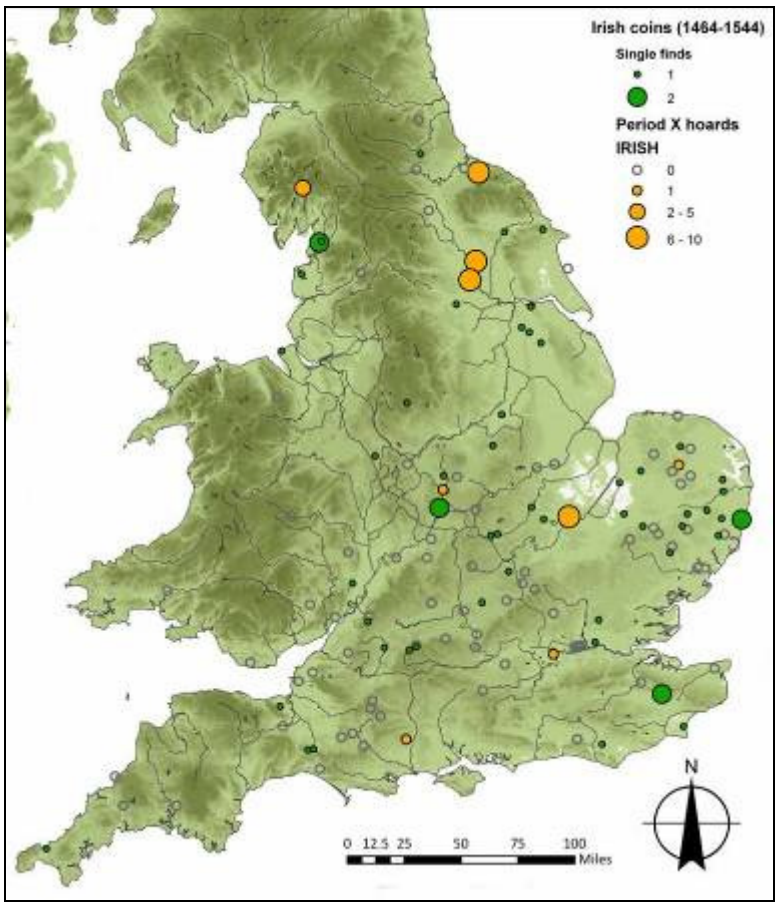
Map 6.28 Second wave (*c.* 1501-20) soldini.



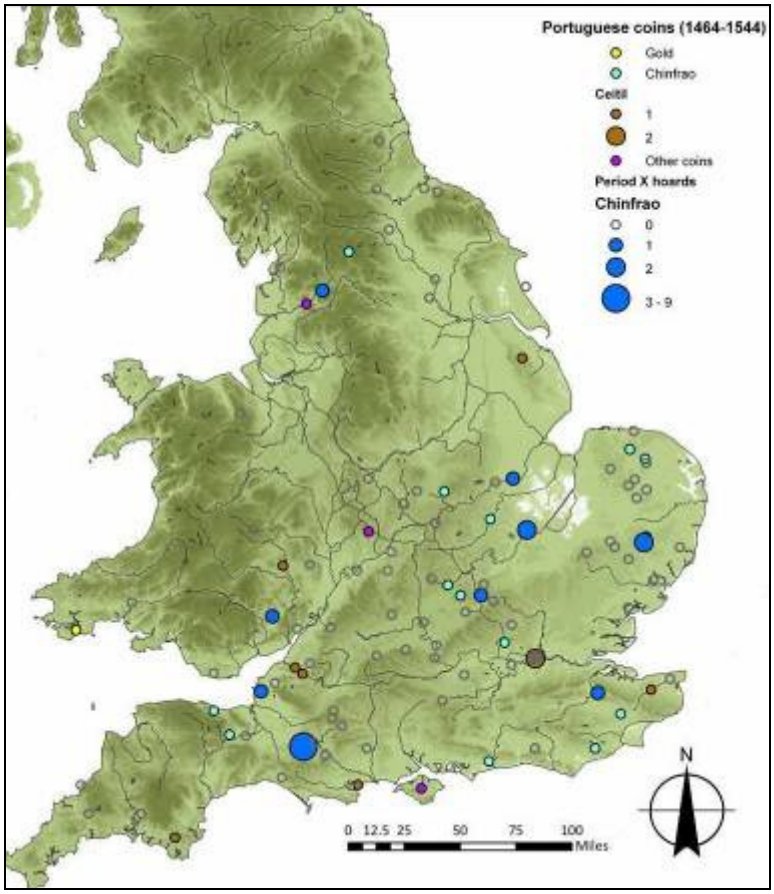
Map 6.28a Single finds and hoards of Double patards.



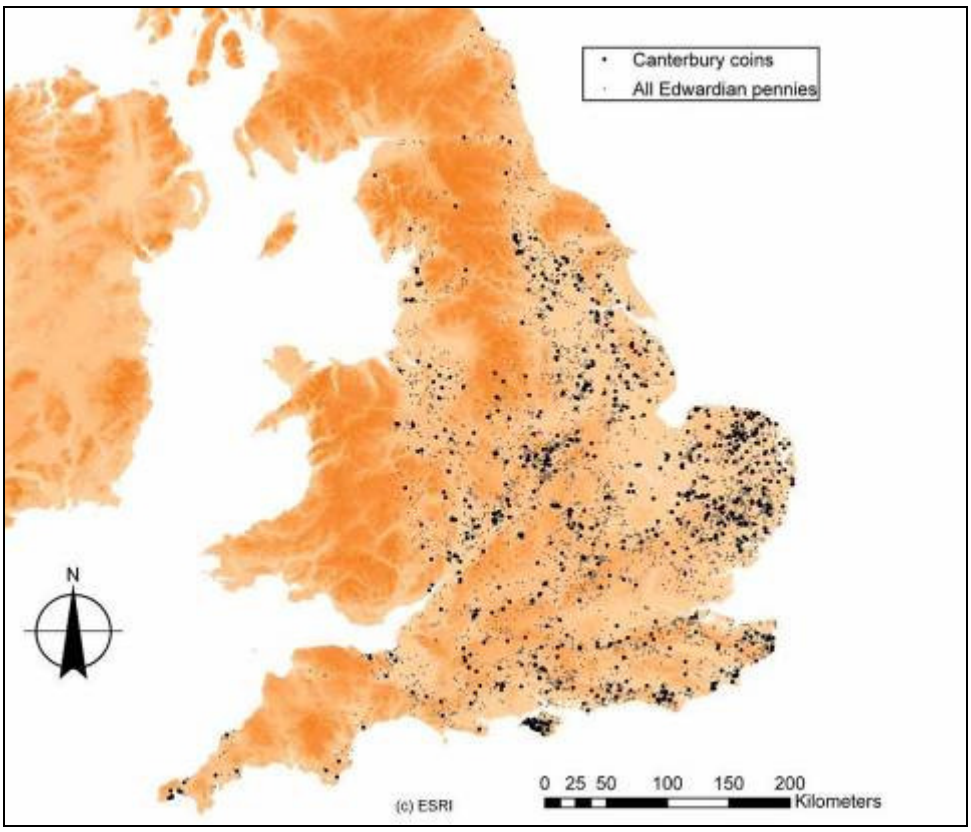
Map 6.29 Double patards and Period X groats.



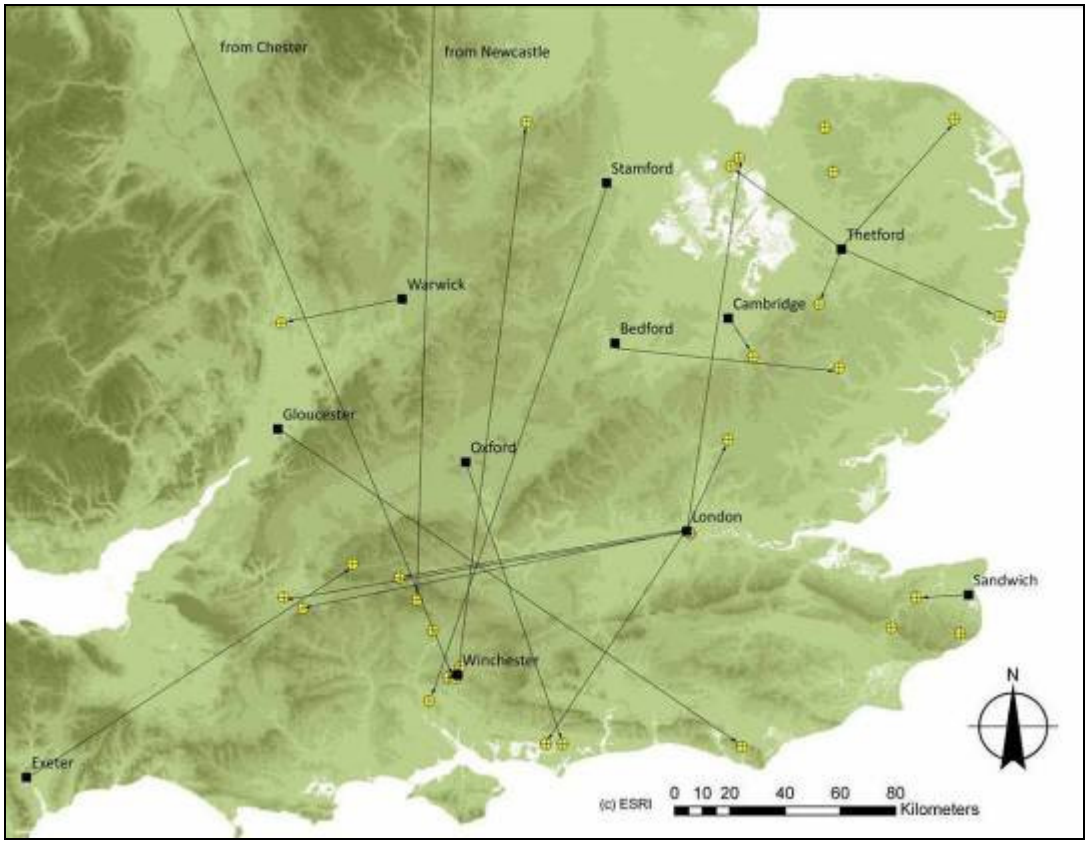
Map 6.30 Period X Irish coins.



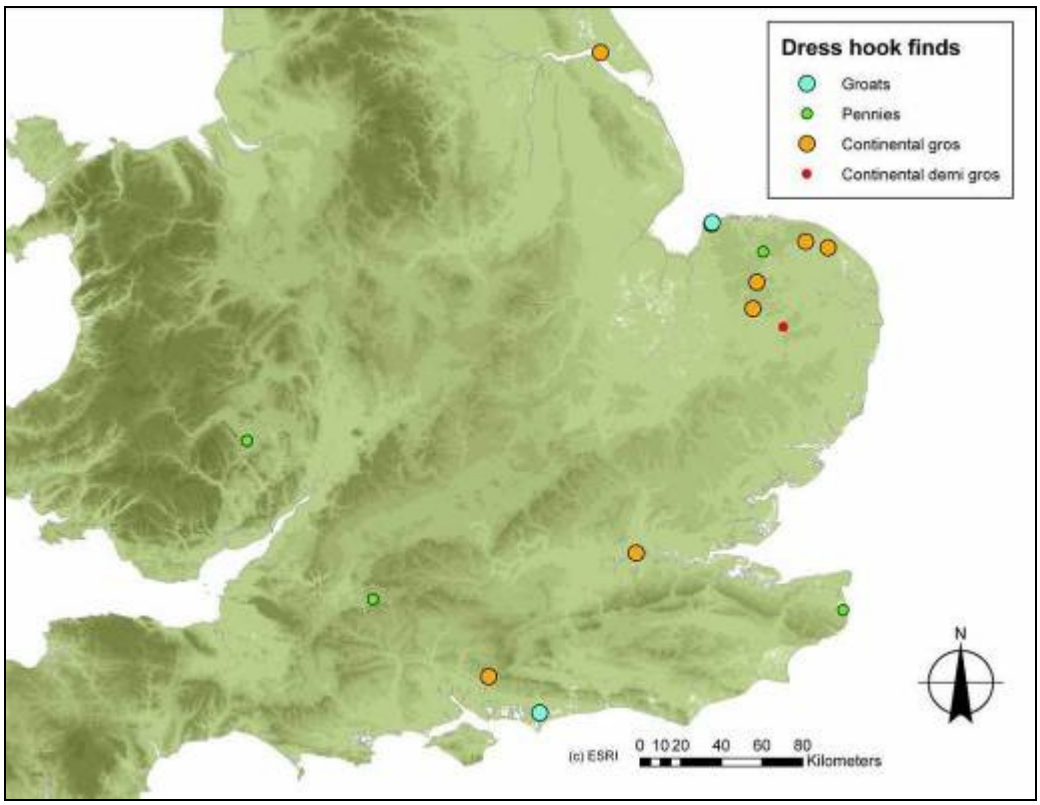
Map 6.31 Period X Portuguese coins in England.



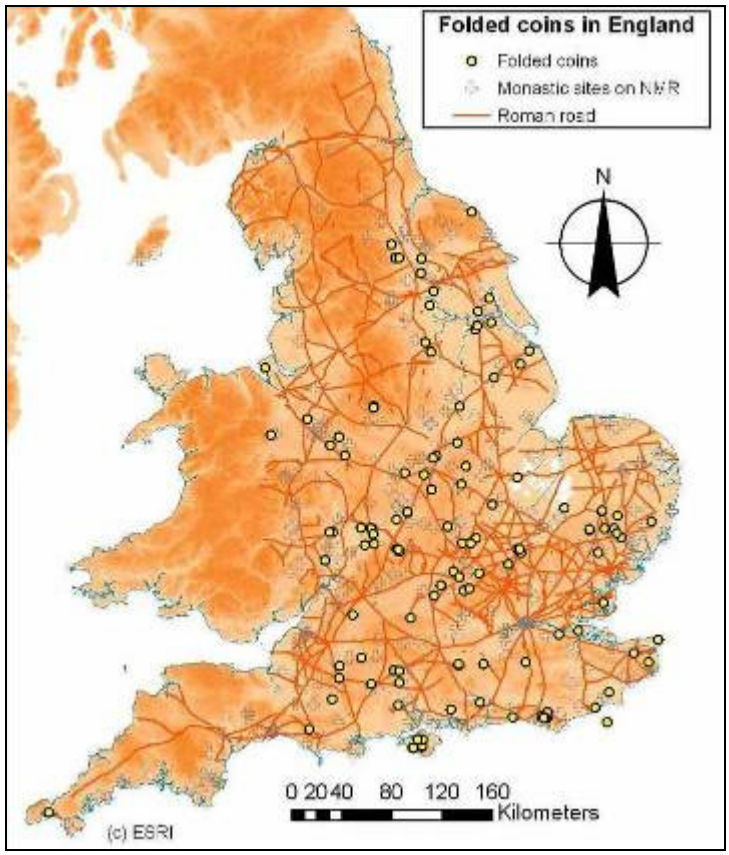
Map 7.1 Pennies minted in Canterbury in Period VII.



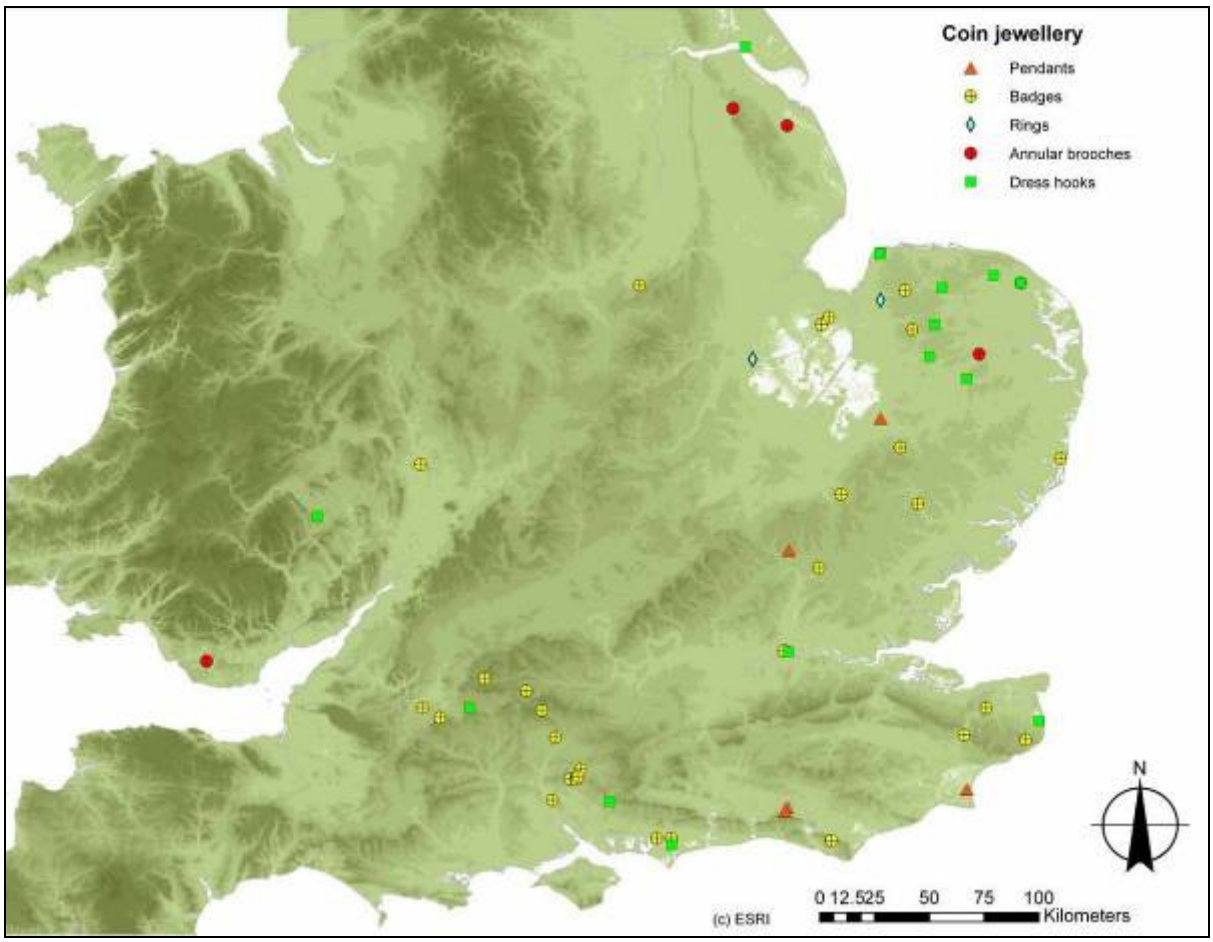
Map 7.2 Mint sources for coins used as badges.



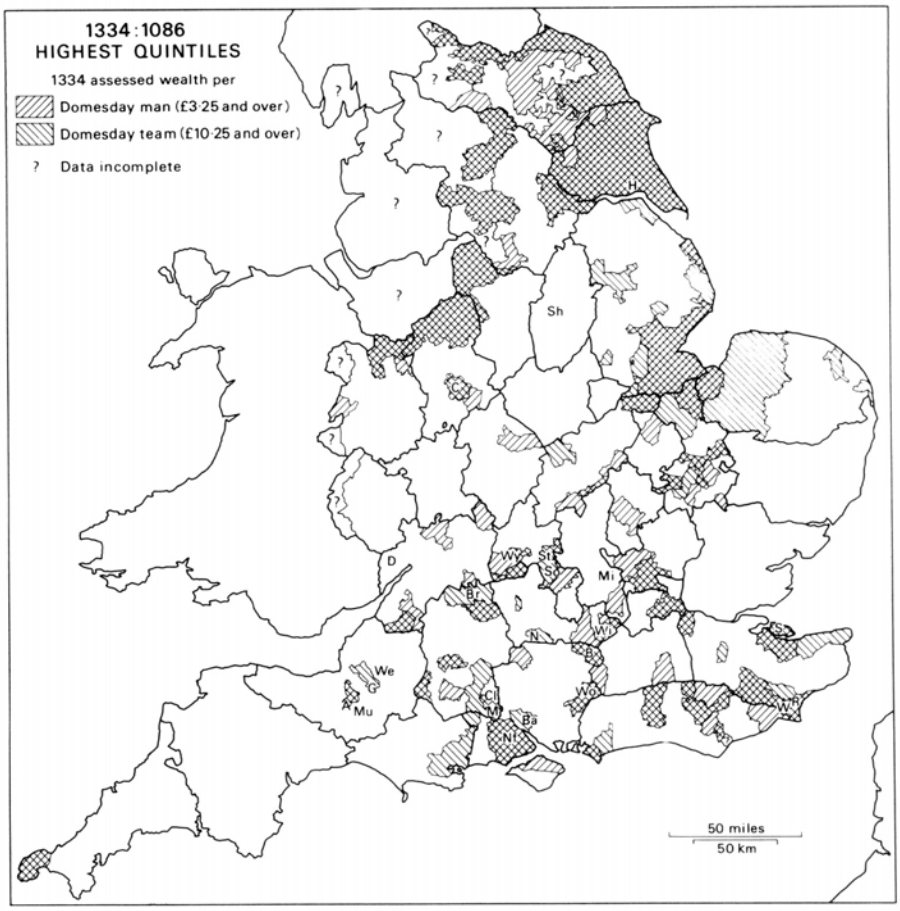
Map 7.3 Distribution of dress hook types.



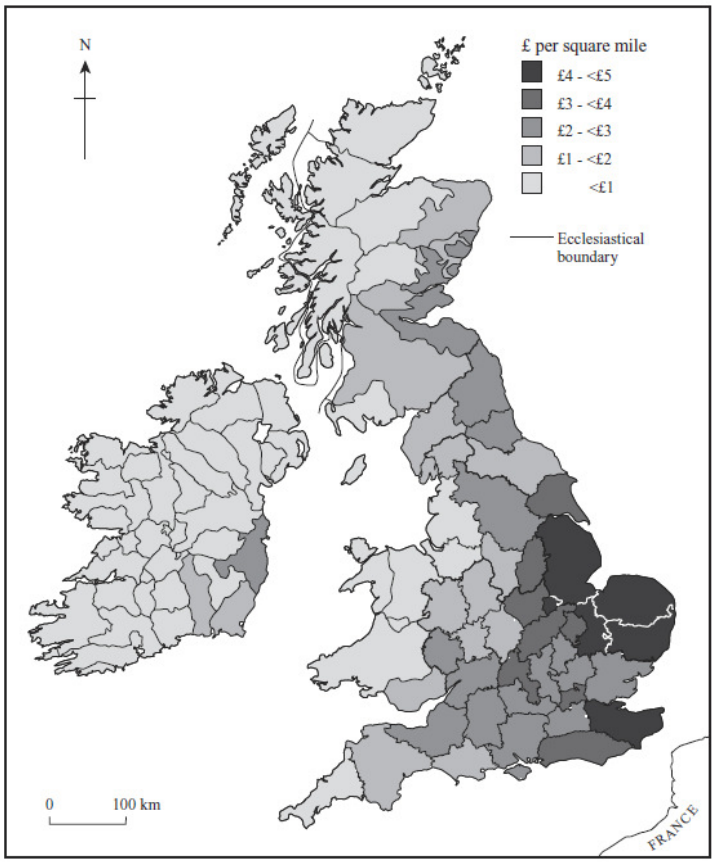
Map 7.4 Folded PAS coins and monastic sites in England. The distributions are wide with no real links between the two sources of data. This suggests that folded coins were in use, or at least deposited, in contexts other than those historically attested.



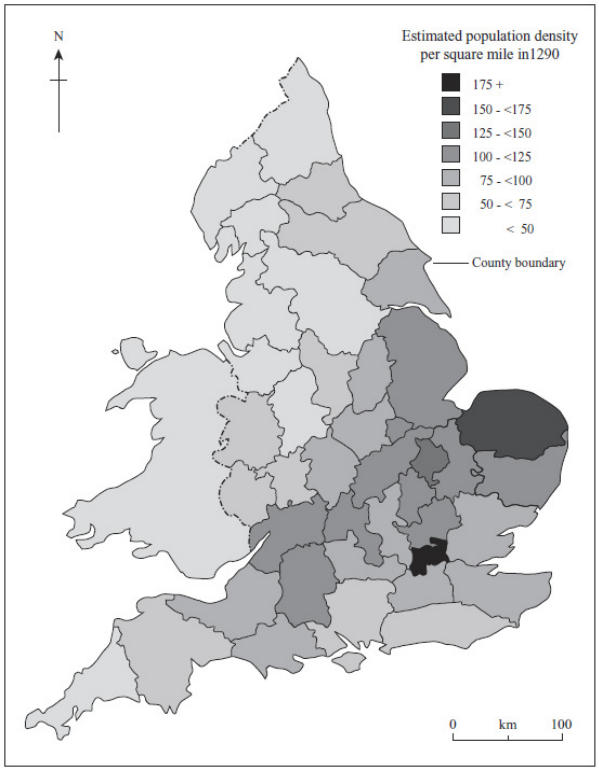
Map 7.5 Coin jewellery plotted by location and type.



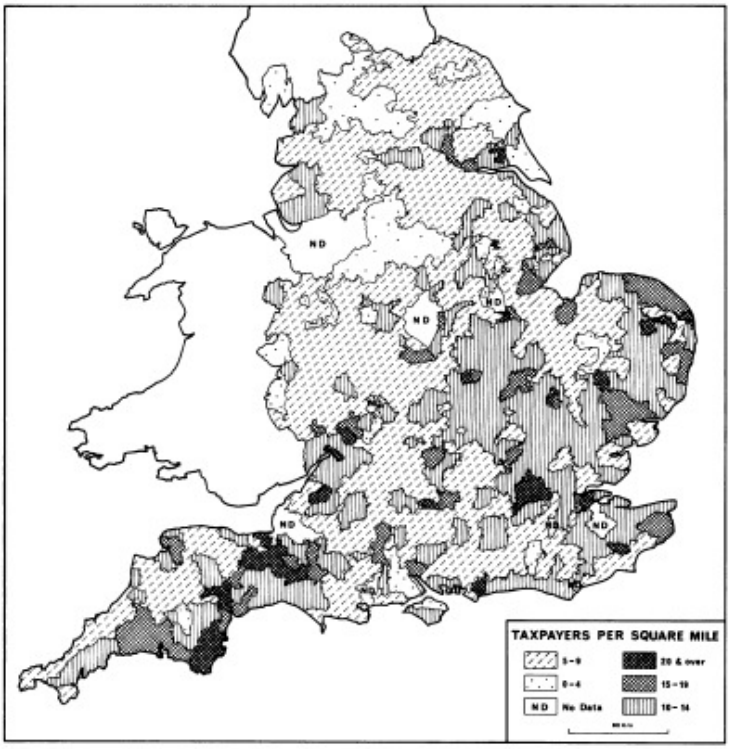
Map 8.1 1334 : 1086 Highest quintiles (Darby *et al* 1976: 255, Figure 3)



Map 8.2 Income of the Church from spiritualities in England, Wales, and Scotland (1291) and from spiritualities in Ireland (1303-6) (Campbell 2008: 924, Figure 3)



Map 8.3 England and Wales estimated population density per county in 1290 (Campbell 2008: 929, Figure 4)



Map 8.4 The distribution of taxpayers as indicated in the extant returns of the 1520s and 1540s: a synthesis (Sheail 1972: 119, Figure 3)

APPENDIX B – ENGLISH AND WELSH HOARDS 1066-1544

This hoard appendix has been compiled largely from the English hoards listed in Allen 2012a with data for the additional Welsh hoards gathered from other sources, including Allen forthcoming.

Period I hoards (1066-1100)

A1. Denge Marsh, Kent, 1739 (*c.* 1067-8)
Edward the Confessor (?), Harold II *Pax* and William I type 1; *c.* 500 coins.
Metcalf 1957: 186-90; Dolley 1966b, no. 183; Blackburn and Pagan 1986, no 265; Purefoy 1996; Allen 2006b, no. 56; *Checklist*, no. 265; Allen 2012a, no. 66.

A2. Norwich (Garlands), Norfolk, 1972 (*c.* 1067-8)
William I type 1; *c.* 11 or 12 coins.
Clough 1973; Blackburn and Pagan 1986, no. 264; Allen 2006b, no. 57; *Checklist*, no. 264; Allen 2012a, no. 67.

A3. Rotherham, 1939 (*c.* 1067-8)
Harold II *Pax* and William I type 1; 43 coins (32 listed).
Allen 1938-41: 269; Thompson 1956, no. 318; Dolley 1966b, no. 186; Blackburn and Pagan 1986, no. 262; Allen 2006b, no. 58; *Checklist*, no. 262; Allen 2012a, no. 68.

A4. Soberton, Hampshire, *c.* 1850 (*c.* 1067-8)
Edward the Confessor *Expanding Cross* to William I type 1; 259 coins.
Hawkins 1852: 17; Hawkins 1851: 100; Thompson 1956, no. 334; Dolley 1966b, no. 187; Blackburn and Pagan 1986, 263; Allen 2006b, no. 59; Checklist, no. 263; Allen 2012a, no. 69. [113 coins British Museum]

A5. York Minster, 1970-1 (*c.* 1067-8)
William I type 1; 3 coins.
Pirie with Archibald 1995, 530; Allen 2006b, no. 60; Allen 2012a, no. 70.

A6. Uncertain findspot, before 1853 (*c.* 1067-8)
Harold II *Pax* and William I type 1; hoard or parcel of *c.* 18 coins.
Blunt 1976: 227; Blackburn and Pagan 1986, no. 298; Allen 2006b, no. 129; Checklist, no. 298; Allen 2012a, no. 71.

A7. Salisbury Plain, Wiltshire, in or before 1855 (*c.* 1067-8?)
William I type 1 and Magnus of Denmark (only?); hoard or parcel of 2 coins.
Dolley 1957; Dolley 1966b, no. 250; Blackburn and Pagan 1986, no. 250; Allen 2006b, no. 61; Checklist, no. 250; Allen 2012a, no. 72.

A8. Oulton, Staffordshire, 1795 (*c.* 1068-70)
Edward the Confessor *Expanding Cross* to William I type 2; ?*c.* 4,000 coins.
Dolley 1966b, no. 185; Robinson 1969: 24-30; Robinson 1979; Blackburn and Pagan 1986, no. 266; Manville 1993a, 101; Allen 2006b, no. 63; Checklist, no. 266; Allen 2012a, no. 73.

A9. York (Baile Hill), 1802 (*c.* 1068-70)
William I type 2 (only?); *c.* 100 coins.
Metcalf 1960-1; Dolley 1966b, no. 188; Pirie 1975, xxxv; Blackburn and Pagan 1986, no. 270; Allen 2006b, no. 64; Checklist, no. 270; Allen 2012a, no. 74.

A10. York (Bishophill, no. 2), 1882 (*c.* 1068-70)
William I types 1 and 2; *c.* 50-60 coins.
Thompson 1956, no. 386; Dolley 1971; Pirie 1972; Pirie 1975, xxxvi-xxxvii; Blackburn and Pagan 1986, no. 273; Allen 2006b, no. 65; Checklist, no. 273; Allen 2012a, no. 75.

A11. York (High Ousegate), 1704 (*c.* 1068-70)

William I types 1 and 2 (only?); *c.* 250 coins.
Thompson 1956, no. 387; Dolley 1966b, no. 190; Pirie 1975, xxxiv-xxxv; Blackburn and Pagan 1986, no. 272; Allen 2006b, no. 66; Checklist, no. 272; Allen 2012a, no. 76.

A12. York (Jubbergate, no. 1), 1845 (*c.* 1068-70)
William I types 1 and 2; *c.* 600 coins.
Thompson 1956, no. 388; Dolley 1966b, no. 271; Pirie 1972; Pirie 1975, xxxviii; Blackburn and Pagan 1986, no. 271; Allen 2006b, no. 67; Checklist, no. 271; Allen 2012a, no. 77.

A13. Bierley, Bradford, before 1741 (*c.* 1068-70?)
No information about contents; including William I type 2?
Dolley 1966b, no. 181; Blackburn and Pagan 1986, no. 267; Allen 2006b, no. 124; Checklist, no. 267; Allen 2012a, no. 78.

A14. Bramham Moor, Leeds, before 1816 (*c.* 1068-70?)
No information about contents; including William I type 2?
Dolley 1966b, no. 268; Blackburn and Pagan 1986, no. 268; Allen 2006b, no. 125; Checklist, no. 268; Allen 2012a, no. 79.

A15. Middleham, North Yorkshire, before 1848 (*c.* 1068-70?)
William I type 2 (only?); hoard or parcel of 3 coins.
Dolley 1966b, no. 184; Blackburn and Pagan 1986, no. 269; Allen 2006b, no. 62; Checklist, no. 269; Allen 2012a, no. 80.

A16. Wallingford, Oxfordshire, before 1894 (*c.* 1068-70)
William I type 2; 2 coins (possibly single-finds).
BNJ Coin Register 1987, no. 170; Metcalf 1998, 181, 269; Allen 2006b, no. 117; Allen 2012a, no. 81.

A17. Corringham, Lincolnshire, 1994 (early 1070s)
Edward the Confessor *Pyramids* to William I type 3; 100 coins.
CH 1996, no. 131; Allen 2006b, no. 68; Checklist, no. 278a; Allen 2012a, no. 82.

A18. Whitchurch, Oxfordshire, before 1900 (early 1070s)
Edward the Confessor *Facing Bust* to William I type 3; more than 5 coins.
Thompson 1956, no. 376; Dolley 1966, no. 195; Blackburn and Pagan 1986, no. 279; Allen 2006b, no. 69; Checklist, no. 279; Allen 2012a, no. 83.

A19. Beddington Park, Sutton, 1978 (early/mid-1070s)
William I type 4; 4 coins.
CH 5 (1979), no. 278; Blackburn and Pagan 1986, no. 280; Allen 2006b, no. 70; Checklist, no. 280; Allen 2012a, no. 84.

A20. Cranwich, Norfolk, 1994 (early/mid-1070s)
William I type 4; 2 coins (possibly single-finds).
Metcalf 1998 184, 255; Allen 2006b, no. 118; Checklist, no. 282a; Allen 2012a, no. 85.

A21. London ('City' or 'Queen Victoria Street' or 'Walbrook'), 1872 *(c. 1066 or mid-1070s)*
Æthelred II *Last Small Cross* to Edward the Confessor *Pyramids* or William I type 4; Danish (Sven Estridssen) and German (Henry III); *c.* 7,000 coins.
Thompson 1956, no. 255; Dolley 1966b, nos 178 and 197; Burrows 1977; Blackburn and Pagan 1986, no. 261; Allen 2006b, no. 55; *Checklist*, no. 261; Allen 2012a, no. 86.

A22. London (St Mary at Hill), 1774 (early/mid-1070s)
Edward the Confessor *Pointed Helmet* to William I type 4; *c.* 300-400+ coins.
Thompson 1956, no. 250; Dolley 1966b, no. 198; Blackburn and Pagan 1986, no. 282; Allen 2006b, no. 71; Checklist, no. 282, Allen 2012a, no. 86; Allen 2012a, no. 87.

A23. Malmesbury, Wiltshire, 1828 (early/mid-1070s?)
William I types 2 and 4 (only?); more than 11 coins.
Thompson 1956, no. 264; Dolley 1966b, no. 196; Blackburn and Pagan 1986, no. 281; Allen 2006b, no. 72; Checklist, no. 281; Allen 2012a, no. 89.

A24. Maltby Springs, North Lincolnshire, 1999 (late 1070s/early 1080s)
William I types 4 and 5; 5 silver pennies.
CH 2000, no. 45; Gannon and Williams 2001; Allen 2006b, no. 73; Checklist, no. 283a; Allen 2012, no. 90.

A25. Scaldwell ('War Area'), **Northamptonshire**, 1914 (late 1070s/early 1080s)
William I type 5; 264 coins.
Coin breakdown
Thompson 1956, no. 323; Dolley 1955-7a; Dolley 1966b, no. 199; *CH* 6 (1981), no. 375; Blackburn and Pagan 1986, no. 284; Allen 2006b, no. 74; Checklist, no. 284; Allen 2012a, no. 91.

A26. Tiverton, Cheshire, 2000 (late 1070s/early 1080s)
William I type 5; 5 silver pennies and fragments of a cut halfpenny
Gannon and Williams 2001; Allen 2006b, no. 75; Checklist, no. 283b; Allen 2012a, no. 92.

A27. Winchester (Cathedral Green), Hampshire, 1964 (early 1080s)
William I type 6; 2 coins.
Blunt and Dolley 1977, 137; Allen 2006b, no. 77; Checklist, no. 285a; Allen 2012a, no. 93.

A28. York (Monkgate), 1851 (early 1080s)
William I type 4 to type 6; 75 coins.
Thompson 1956, no. 390; Dolley 1966b, no. 200; Blackburn and Pagan 1986, no. 285; Allen 2006b, no. 76; Checklist, no. 285; Allen 2012a, no. 94.

A29. Abergavenny area, Monmouthshire, Wales, 2002 (mid-1080s)
Edward the Confessor *Expanding Cross* to William I type 7; 199 silver pennies.
TAR 2002, no. 217; Allen forthcoming, no. 7. [National Museums & Galleries of Wales]

A30. Bradenham, Norfolk, 1994 (mid-1080s)
Coin breakdown
Metcalf 1998 187, 255; Allen 2006b, no. 119; Allen 2012a, no. 95.

A31. Beauworth, Hampshire, 1833 (late 1080s)
William I type 5 to type 8; *c.* 12,000 coins.
Thompson 1956, no. 37; Dolley 1966b, no. 202; Blackburn and Pagan 1986, no. 287; Manville 1993a, 93; Allen 2006b, no. 78; Checklist, no. 287; Allen 2012a, no. 96.

A32. Louth (near), Lincolnshire, 1992 (late 1080s)
William I type 8; 2 coins.
BNJ Coin Register 1998, no. 155; Allen 2006b, no. 79; Checklist, no. 292a; Allen 2012a, no. 97.

A33. York (Jubbergate, no. 2 or Peterlane), 1847 (late 1080s)
William I type 8 (only?); less than 30 coins?
Dolley 1966b, no. 201; Blackburn and Pagan 1986, no. 286; Allen 2006b, no. 80; Checklist, no. 286; Allen 2012a, no. 98.

A34. Bury St Edmunds (Mill Lane), Suffolk, 1851 (1066-1080s?)
William I; uncertain no. of coins.

Thompson 1956, no. 62; Dolley 1966b, no. 192; Blackburn and Pagan 1986, no. 275; Allen 2006b, no. 81; Checklist, no. 275; Allen 2012a, no. 99.

A35. Colsterworth (or 'Near Grantham'), Lincolnshire, before 1735 (1066-1080s?)

William I; 'several' coins.

Blackburn and Pagan 1986, no. 277; Allen 2006b, no. 82; Checklist, no. 277; Allen 2012a, no. 100.

A36. Sutton, Cambridgeshire, 1694 (1066-1080s?)

William I; *c.* 100 coins.

Thompson 1956, no. 346; Dolley 1966b, no. 193; Blackburn and Pagan 1986, no. 276; Allen 2006b, no. 83; Checklist, no. 276; Allen 2012a, no. 101.

A37. Stalbridge, Dorset, 2005 (early 1090s)

William II types 1 and 2 (only?); at least 4 coins.

Allen 2012a, no. 102.

A38. Tamworth, Staffordshire, 1877 (early 1090s)

William I type 8 to William II type 2; *c.* 300 coins.

Thompson 1956, no. 350; Dolley 1966b, no. 203; Blackburn and Pagan 1986, no. 288; Stewart 1992b, 129-32; Allen 2006b, no. 85; Checklist, no. 288; Allen 2012a, no. 103.

A39. Beetham, Cumbria, 1834 (1066-*c.* 1100?)

Cnut to William II?; more than 100 coins.

Metcalf 1960-1, no. 2; Dolley 1966b, no. 191; Blackburn and Pagan 1986, no. 274; Manville 1993a, 94; Allen 2006b, no. 84; Checklist, no. 274; Allen 2012a, no. 104.

Period II hoards (1100-1135)

B1. Bermondsey, Southwark, *c.* 1820 (1100-*c.* 1102)

William II type 2 to Henry I type 1; 13 coins

Thompson 1956, no. 42; Blackburn 1990, no. 1; Allen 2006b, no. 86; Checklist, no. 401; Allen 2012a, no. 105.

B2. Lewes, Sussex, 2008 (1100-*c.* 1102?)

William II type 5/Henry I type 1 mule and Henry I type 1; 2 coins

EMC 2008.0135 and 2008.0273.; Allen 2012a, no. 106.

B3. Andover, Hampshire, 2002-8 (*c.* 1110?)

Henry I type 9; 2 coins

EMC 2008.0204 and 2008.0205; Allen 2012a, no. 107.

B4. Shillington, Bedfordshire, 1871 (early 1110s)

William II type 1 to Henry I type 7; more than *c.* 250 coins.

Thompson 1956, no. 330; Blackburn 1990, no. 9; Stewart 1992b; Allen 2006b, no. 87; Checklist, no. 402; Allen 2012a, no. 108.

B5. Toddington, Bedfordshire, 1995 (mid-1110s)

Henry I type 11; 9 coins.

CH 1997, no. 51; Allen 2006b, no. 88; Checklist, no. 403; Allen 2012a, no. 109.

B6. Llantrithyd, Vale of Glamorgan, 1962-3 (*c.* 1115-17)

Henry I type 11; 8 coins. From excavated wall of early medieval hall.

Llantrithyd: a Ringwork in South Glamorgan; Dolley 1962; Dolley 1964; Boon 1986: 103-5; Allen forthcoming, no. 8.

B7. Carleton Rode, Norfolk, 2003-4 (late 1110s)
Henry I type 10; 4 coins.
BNJ Coin Register 2003, nos 255, 259; Allen 2006b, no. 120; *TAR* 2004, no. 459; *CH* 2007, no. 61; Allen 2012a, no. 110.

B8. Mansfield Woodhouse, Nottinghamshire, 1991 (late 1110s)
Henry I type 10; more than 75 coins.
Allen 2006b, no. 89; information from Dr Barrie Cook; Allen 2012a, no. 111.

B9. 'South Oxfordshire' (Whitchurch area), 19th century (early 1120s)
Henry I type 13; ?more than 18 coins.
Seaby 1988, 38 n. 28; Blackburn 1990, no. 15; Allen 2006b, no. 90; Checklist, no. 405; Allen 2012a, no. 112.

B9a. Milford Haven, Pembrokeshire, *c.* 1858-60 (*c.* 1124/5)
Henry I types 13 and 14; *c*. 50 coins.
Thompson 1956, no. 268; Allen forthcoming, no. 9.

B10. Bournemouth (or 'Canterbury'), *c.* 1901 (*c.* 1125)
Henry I type 10 to type 14; 376 coins.
Thompson 1956, nos. 49 and 71; Stewart 1977; Blackburn 1990, no. 17; Allen 2006b, no. 91; Checklist, no. 407; Allen 2012a, no. 113.

B11. Kings Stanley, Gloucestershire, 1966-8 (1125-late 1120s)
Henry I type 10 to type 15; 5 coins.
SCBI 24, p. xxiii and nos 847, 852-3, 855, 857; Allen 2009a 73; Allen 2012a, no. 114.

B12. Lincoln (Malandry), Lincolnshire, 1971-2 (early/mid-1130s)
Henry I type 5 to type 15; more than 744 coins.
CH 1 (1975), no. 359; Blackburn 1990, no. 19; Allen 2006b, no. 93; Checklist, no. 408; Allen 2012a, no. 115.

B13. Lowestoft, **Suffolk**, 1905 (1125-mid-1130s)
Henry I types 14 and 15; more than 12 coins.
Thompson 1956, no. 262; Blackburn 1990, no. 21; Allen 2006b, no. 95; Checklist, no. 410; Allen 2012a, no. 116.

B14. Battle, **East Sussex**, *c.* 1860? (1125-mid-1130s)
Henry I type 10 to type 15; hoard or parcel of 13 coins.
Thompson 1956, no. 36; Blackburn 1990, no. 20; Allen 2006b, no. 92; Checklist, no. 409; Allen 2012a, no. 117.

B15. Holbeck, Nottinghamshire, 2007 (1125-mid-1130s)
Henry I type 15; 2 coins.
PATAR 2008, no. 586; *CH* 2010, no. 62; Allen 2012a, no. 118.

B16. Knaresborough area, Yorkshire, 2008-9 (1125-mid-1130s)
Henry I type 15; 176 coins. + 2 fragments.
Information from Dr Gareth Williams; Allen 2012a, no. 119.

B17. London (Billingsgate spoil), 1984 (1125-mid-1130s)
Henry I type 15; 2 coins. **Folded together**
Merrifield 1987, 109-10; Stott 1991, 318; Allen 2006b, no. 94; Checklist, no. 410a; Allen 2012a, no. 120.

Period III hoards (1135-58)

C1. Bedford area, Bedfordshire, 1994 (*c.* 1140)
Henry I type 15 and Stephen type 1; ?*c.*150 coins (3 seen by Blackburn)
CH 1996, no. 132; Allen 2006b, no. 96; Checklist, no. 412; Allen 2012a, no. 121

C2. Bledlow with Saunderton, Buckinghamshire, 1998 (*c.* 1140)
Stephen type 1; 2 silver pennies.
CH 1999, no. 45; Allen 2006b, no. 97; Checklist, no. 412a; Allen 2012a, no. 122. Buckinghamshire County Museum

C3. Eynsford, Kent, 1993 (*c.* 1140)
Stephen type 1; 9 coins + 2 fragments.
Information from Dr Barrie Cook; Allen 2012a, no. 123.

C4. Grendon, Northamptonshire, 2000 (*c.* 1140)
Henry I type 15 and Stephen type 1; 4 coins. **This is a folded group**
CH 2001, no. 77; Allen 2006b, no. 98; Checklist, no. 412b; Allen 2012a, no. 124.

C5. Henley-on-Thames, Oxfordshire, 1881 (*c.* 1140)
Stephen type 1; 5 coins.
Dolley 1962; Blackburn 1994, no. 1; Allen 2006b, no. 99; Checklist, no. 411; Allen 2012a, no. 125.

C6. Humberside, 1994 (*c.* 1140)
Stephen type 1; 3 coins.
Allen 2006b, no. 100; Checklist, no. 419a; Allen 2012a, no. 126.

C7. Rayleigh, Essex, 1909-10 and 1961 (*c.* 1140)
Stephen type 1; 8 coins + 1 fragment.
Seaman 1969; Blackburn 1994, no. 3; Allen 2006b, no. 101; Checklist, no. 414; Allen 2012a, no. 127.

C8. York area, 2005 (*c.* 1140)
Stephen type 1; 8 coins.
TAR 2005/6, no. 1168; *CH* 2008, no. 55; Allen 2012a, no. 128.

C9. South Kyme, Lincolnshire, before 1922 (early 1140s)
Henry I type 10 to Stephen type 1 and independent types (of the reign of Stephen); 334 coins.
Lawrence 1922; Thompson 1956, no. 337; Blackburn 1990, no. 25; Blackburn 1994, no. 5; Allen 2006b, no. 102; Checklist, no. 415; Allen 2012a, no. 129.

C10. Watford, Hertfordshire, 1818 (early 1140s)
William I type 5 to Stephen type 1 and independent types; more than 1,127 coins (779 listed)
Thompson 1956, nos 372-3; Blackburn 1990, no. 28; Blackburn 1994, no. 2; Manville 1995, 174; Allen 2006b, no. 103; Checklist, no. 413; Allen 2012a, no. 130.

C11. Dartford/Gravesend, Kent, 1817 or 1825/6 (early/mid-1140s)
Henry I type 15 to Stephen type 1 (erased die) and independent types; *c.* 70 coins.
Thompson 1956, no. 116; Blunt, Elmore Jones and Robinson 1968: 39-40; Blackburn 1990, no. 29; Blackburn 1994, no. 7; Allen 2006b, no. 104; Checklist, no. 417; Allen 2012a, no. 131.

C12. Dunton, Norfolk, 2007 (early /mid-1140s)

Stephen type 1 and independent type; 3 coins.
PATAR 2007, no. 546; *CH* 2009, no. 69; Allen 2012a, no. 132.

C13. Nottingham, 1880 (early/mid-1140s)
Henry I type 10 to Stephen type 1 (erased die) and independent types; ?more than 300 coins.
Thompson 1956, no. 295; Danson 1968; Blackburn 1990, no. 26; Blackburn 1994, no. 9; Allen 2006b, no. 105; Checklist, no. 418; Allen 2012a, no. 1; Allen 2012a, no. 133.

C14. Prestwich, Bury, 1972 (early/mid-1140s)
Henry I type 15 to Stephen type 1 (erased die) and independent types; 1,065 coins.
CH 1 (1975), no. 360; Blackburn 1990, no. 32; Blackburn 1994, no. 6; Allen 2006b, no. 106; Checklist, no. 416; Allen 2012a, no. 1; Allen 2012a, no. 134.

C15. Linton, Kent, 1883 (mid/late 1140s)
Henry I type 15 to Stephen type 2 and independent types; *c.* 180 coins (89 listed).
Thompson 1956, no. 235; Blackburn 1990, no. 31; Blackburn 1994, no. 11; Allen 2006b, no. 107; Checklist, no. 421; Allen 2012a, no. 1; Allen 2012a, no. 135.

C16. Sheldon, Derbyshire, 1867 (mid/late 1140s)
Henry I type 15 to Stephen type 2 and independent types; 102 coins.
Andrew 1910: 27ff; Brooke XXXX: xxviii; Thompson 1956, no. 329; Blackburn 1990, no. 30; Blackburn 1994, no. 10; Allen 2006b, no. 108; Checklist, no. 420; Allen 2012a, no. 1; Allen 2012a, no. 136 [Chatsworth, Duke of Devonshire]

C17. Ashby-de-la-Zouche (Ashby Wolds), Leicestershire, 1788 or 1789 (1140s?)
Henry I type 15 to Stephen type 1 and independent types; *c.* 450 coins.
GM (Oct 1796): 843; Andrew 1909: 187; Thompson 1956, no. 14; Blunt, Elmore Jones and Robinson 1968: 35-8; Manville 1993a: 93; Blackburn 1994, no. 12; Allen 2006b, no. 109; Checklist, no. 422; Allen 2012a, no. 1; Allen 2012a, no. 137. [unknown disposition].

C18. Latton [churchyard], Wiltshire, *c.* 1882 (1140s?)
Henry I type 15 to Stephen type 1; at least *c.* 50 coins (2 preserved).
WAM 37 (1911): 497; Andrew 1909: 187; Shortt 1950: 418; Thompson 1956, no. 230; Blunt and Elmore Jones 1969; Robinson 1984; Blackburn 1994, no. 4; Allen 2006b, no. 110; Checklist, no. 308; Allen 2012a, no. 138. [Devizes Museum (2); remainder dispersed]

C19. Lincoln, Lincolnshire, 1848 (1140s?)
Henry I and Stephen; *c.* 300 coins.
Gentleman's Magazine new ser. 27 (1849), 407; S. Leigh Sotheby & John Wilkinson, 4 April 1851, lots 7-8; Metcalf 1958, 90; information from Hugh Pagan; Allen 2012a, no. 1; Allen 2012a, no. 139.

C20. Box, Wiltshire, 1993-4 (*c.* 1150)
Stephen type 1 and independent types; 104 coins.
CH 1996, no. 133; Archibald 2001; Allen 2006b, no. 111; Checklist, no. 424; Allen 2012a, no. 140.

C21. Coed-y-Wennalt, 1980 (*c.* 1150)
Stephen type 1 and independent types; 102 coins.
Boon 1986, 37-82; Allen forthcoming, no. 10.

C22. Winterslow, Wiltshire, *c.* 1804 (*c.* 1150)
Stephen types 1 and 2 and independent types; more than 18 coins.
Thompson 1956, no. 378; Blackburn 1994, no. 13; Allen 2006b, no. 112; Checklist, no. 423; Allen 2012a, no. 141.

C23. Cattal, North Yorkshire, 1684 (early 1150s)
Stephen independent types; more than 4 coins.
Thompson 1956, no. 80; Blackburn 1994, no. 14; Allen 2006b, no. 113; Checklist, no. 425; Allen 2012a, no. 142.

C24. Portsdown Hill, Hampshire, 1995 (*c.* 1154-8)
Stephen type 7; 23-25 coins.
Buckland Dix & Wood, 28 June 1995, lots 171-91; Allen 2006b, no. 114; Allen 2012a, no. 143.

C25. Uncertain findspot ('Kent'), 1986 (*c.* 1154-8)
Stephen type 1 to type 7; 14 coins.
Rogers 1988; Blackburn 1994, no. 15; Allen 2006b, no. 130; Checklist, no. 426; Allen 2012a, no. 144.

C26. Uncertain findspot (Norfolk?), in or before 1660 (1135-58?)
Stephen; hoard or parcel of 60 coins.
Blunt, Elmore Jones and Robinson 1968, 41-2; Blackburn 1994, no. 18; Allen 2006b, no. 131; Checklist, no. 310; Allen 2012a, no. 145.

Period IV hoards (1135-54)

D1. Reach Fen, Cambridgeshire, *c.*1900? (*c.* 1160-80)
Cross-and-Crosslets, including class C; hoard or parcel of 15 coins
Glendining's, 7 October 1986, lot 1702; Crafter 1998, no. 8; Allen 2002a, no. 5; Allen 2012a, no. 146.

D2. Awbridge, Hampshire, *c.*1902 (mid/late 1160s)
Stephen and *Cross-and-Crosslets* to class C; *c.* 180 or *c.* 188 coins.
Grueber 1905; Allen 1951, lvi-lvii, lx; Thompson 1956, no. 16; Mack 1966, 106; Blackburn 1994, no. 20; Crafter 1998, no. 1; Allen 2002a, no. 6; Allen 2012a, no. 147.

D3. Bramham Moor, Leeds, 1753 (mid/late 1160s)
Cross-and-Crosslets to class C; 245 coins + 3 rings + 2 buckles.
Withy and Ryall 1756, Pl. III; Allen 1951, xlvi-xlvii, lx; Thompson 1956, no. 52; Metcalf 1958, 79-80; Manville 1993a, 94; Crafter 1998, no. 2; Allen 2002a, no. 7; Allen 2012a, no. 148.

D4. Leiston, Suffolk, 2006 (mid/late 1160s?)
Cross-and-Crosslets to class C; 6 coins.
Information from Dr Gareth Williams; Allen 2012a, no. 149.

D5. Ellesborough, Buckinghamshire, 1777 (*c.* 1170-80)
Cross-and-Crosslets to class E or F; hoard or parcel of 12 coins + possible parcel of 294 coins.
Christie's, 26 April 1888, lots 19-25; Allen 1951, xlvii, lx; Thompson 1956, no. 154; Pagan 1969; Crafter 1998, no. 9; Allen 2002a, no. 10; Allen 2012a, no. 150.

D6. Thorpe Thewles ('near Middlesborough'), Stockton-on-Tees, 1932 (*c.* 1170-80)
Cross-and-Crosslets, including class E; 98 coins.
Crafter 1998, no. 28b; Allen 2002a, no. 326; Crafter 2005; Allen 2012a, no. 151.

D7. Brackley, Northamptonshire, 1986-7 (early/mid-1170s)
Cross-and-Crosslets to class E; 13 coins + 1 silver ring
Crafter 1998, no. 7; Archibald and Cook 2001, no. 2; Allen 2002a, no. 9; Allen 2012a, no. 152.

D8. Outchester, Northumberland, 1817 (early/mid-1170s)
Cross-and-Crosslets to class E and Scottish; *c.* 850 or 'nearly 1,000' coins.
Allen 1951, xlix-lii, lx; Thompson 1956, no 299; Mack 1966, 106; Metcalf 1977b, no. 5; Blackburn 1994, no. 24; Crafter 1998, no. 4; Allen 2002a, no. 11; Allen 2012a, no. 153.

D9. West Meon, Hampshire, 1992 (early/mid-1170s)

Cross-and-Crosslets to class E; 34 coins.
Blackburn 1994, no. 22; Crafter 1998, no. 11; Archibald and Cook 2001, no. 1; Allen 2002a, no. 8; Allen 2012a, no. 154.

D10. Wicklewood, Norfolk, 1989 (early/mid-1170s)
Henry I to *Cross-and-Crosslets* class E; 482 coins.
Christie's, 15 May 1990, lots 1-159; Blackburn 1994, no. 21; Crafter 1998, no. 10; Allen 2002a, no. 12; Allen 2012a, no. 155.

D11. Cwmhir Abbey, Powys, Mid-Wales, before 1978 (late 12th century-mid 13th century)
Aquitaine to Richard I and feudal French; 13 deniers
Brand *BSFN* 33 (6): 372-4; *CH* V, no. 282; Allen forthcoming, no. 12.

D12. Worcester (Lark Hill), Worcestershire, *c.* 1853 (mid-1170s-1180)
Cross-and-Crosslets to class F and Continental; at least 235 + 7 silver rings + 1 silver brooch.
Akerman 1855; Lawrence 1919; Allen 1951, liv-lvi, lx; Thompson 1956, no. 381; Blackburn 1994, no. 25; Crafter 1998, no. 12; Allen 2002a, no. 14; Allen 2012a, no. 156.

D13. Ampthill, Bedfordshire, 1836 (mid-1170s-1180)
Cross-and-Crosslets to class F; 146 coins.
Burgon 1839-40; Pownall 1862; Lawrence 1920; Allen 1951, lii-liii, lx; Thompson 1956, no. 7; Crafter 1998, no. 17; Allen 2002a, no. 15; Allen 2012a, no. 157.

D14. Mile Ditches, Cambridgeshire, 1978 (mid-1170s-1180)
Cross-and-Crosslets to class F; 8 coins.
Crafter 1998, no. 15; Archibald and Cook 2001, no. 3; Allen 2002a, no. 18. ; Allen 2012a, no. 158.

D15. Norton Subcourse, Norfolk, 1987-90 (mid-1170s-1180)
Cross-and-Crosslets to class F; 41 coins.
Crafter 1998, no. 16; Archibald and Cook 2001, no. 4; Allen 2002a, no. 19; Allen 2012a, no. 159.

D16. Tealby, Lincolnshire, 1807 (mid-1170s-1180)
Cross-and-Crosslets to class F; *c.*6,000 (6,064?) coins.
Combe 1817; Allen 1951, xlviii-xlix, lx; Thompson 1956, no. 352; Dolley and Elmore Jones 1958-9; Sturman 1989; Crafter 1998, no. 14; Allen 2002a, no. 13; Allen 2012a, no. 160.

D17. Leicester, 1927 (mid-1170s-1180)
Cross-and-Crosslets to class F; 240 coins
Lawrence 1927; Allen 1951, lix-lx; Thompson 1956, no. 231; Crafter 1998, no. 18; Cherry 2000, no. 13; Allen 2002a, no. 17; Allen 2012a, no. 161.

D18. Gayton, Northamptonshire, 1998-9 (*c.* 1180)
Cross-and-Crosslets to class F; 308 coins + 7 fragments
Crafter 1998, no. 19; Allen 2012a, no. 162.

D19. Fornham St Genevieve, Suffolk, early 20th century (1158-80)
Cross-and-Crosslets; 20-30 coins.
Coin breakdown
Allen 1951, lvii, lx; Thompson 1956, no 164; Crafter 1998, no. 6; Allen 2002a, no. 1; Allen 2012a, no. 163.

D20. Little Barningham, Norfolk, 1997 (1158-80)
Cross-and-Crosslets; 3 coins.
TAR 1997-8, no. 144; *CH* 1999, no. 42; Allen 2002a, no. 2; Allen 2012a, no. 164.

D21. London Bridge (near), 1850 (1158-80)
Stephen and *Cross-and-Crosslets*: 100s of coins.
Sotheby, Wilkinson & Hodge, 21 June 1909, lots 612, 636-7; Allen 1951, liv, lx; Thompson 1956, no. 246; Mack 1966, 104; Blunt, Elmore Jones and Robinson 1968, 41; Blackburn 1994, no. 23; Crafter 1998, no. 3; Allen 2002a, no. 3; Allen 2012a, no. 165.

D22. Royston, Hertfordshire, *c.*1721 (1158-80)
Cross-and-Crosslets; uncertain no. of coins.
Ruding 1840, I, 172; Allen 1951, xlvi, lx; Thompson 1956, no. 319; Crafter 1998, no. 5; Allen 2002a, no. 4; Allen 2012a, no. 166.

D23. Unknown Site, before 1910 (1158-80)
Cross-and-Crosslets; hoard or parcel of 321 coins.
Sotheby, Wilkinson, & Hodge, 24 June 1910, lots 73-8; Allen 1951, lvii-lviii, lx; Thompson 1956, no. 368; Allen 2002a, no. 325; Allen 2012a, no. 167.

Period IV or V (1158-1247)

DE1. Compton Heath, Hampshire, 1758 (1158-80 or 1180-1247)
Cross-and-Crosslets or Short Cross; 'about the quantity of 10 oz.' of silver.
Metcalf 1957, 185-6; Allen 2002a, no. 20; Allen 2012a, no. 168.

DE2. Cotherstone (or Cutherstone), Durham, *c.* 1782 (1158-80 or 1180-1247)
Cross-and-Crosslets or Short Cross; uncertain no. of coins.
Thompson 1956, no. 113; Crafter 1998, no. 13; Allen 2002a, no. 21; Allen 2012a, no. 169.

DE3. Cottenham, Cambridgeshire, 1715 (1158-80 or 1180-1247)
Cross-and-Crosslets or Short Cross; nearly 1,000 coins.
'Hidden treasure in Olden Times', *The East Anglian* 3rd ser. 10 (1903-4), 131-2, at p. 132; Allen 2001a, no. 165; Allen 2002a, no. 22; Allen 2012a, no. 170.

Period V hoards (1180-1247)

E1. High Wycombe, Buckinghamshire, 2004 (mid-1180s)
Short Cross to class 1b2; 11 coins.
TAR 2004, no. 460; *CH* 2007, no. 62; Allen 2012a, no. 171.

E2. Moor Monkton, North Yorkshire, 1984 (mid-1180s)
Short Cross to class 1b2: 114 coins.
Archibald and Cook 2001, no. 5; Allen 2001e, no. 1; Allen 2002a, no. 30; Allen 2012a, no. 172.

E3. Thurlaston, Leicestershire, 2006 (mid-1180s)
Short Cross to class 1b2: 6 coins.
TAR 2004, no.460; *CH* 2007, no. 62; Allen 2012a, no. 173.

E4. Aston (Newhall), Cheshire, *c.* 1939 (*c.* 1190-4)
Short Cross to class 3ab2 and Welsh (Rhuddlan); ?*c.*1,000-2,000 coins.
Dolley 1958-9b, no. 2; Allen 2001e, no. 4; Allen 2002a, no. 33; Allen 2012a, no. 174.

E5. London, in or shortly before 1196 (late 12th century, no later than 1196)
Byzantine; *c.* 72 gold coins.
Cook 1999a, 260; Allen 2002a, no. 32; Allen 2012a, no. 175.

E6. Scotforth, Lancashire, 1854 (*c.* 1195)
Short Cross to class 4a and Welsh (Rhuddlan); hoard or parcel of 89 coins.
White 1985-6, no. 3; Archibald and Cook 2001, no. 7; Allen 2001e, no. 6; Allen 2002a, no. 35; Allen 2012a, no. 176.

E7. Hurstbourne Tarrant, Hampshire, 1985 (*c.* 1195-1200)
Short Cross to class 4a; 11 coins.
Archibald and Cook 2001, no. 6; Allen 2001e, no. 5; Allen 2002a, no. 34; Allen 2012a, no. 177.

E8. 'Southern England', *c.* 1990 (*c.* 1195-1200)
Short Cross to class 4a; hoard or parcel of 80 coins.
Allen 2001e, no. 157; Allen 2002a, no. 36; information from the late Prof. Jeffrey Mass; Allen 2012a, no. 178.

E9. Wainfleet (Croft Bank), Lincolnshire, 1990 (*c.* 1195-1200)
Short Cross to class 4a; 383 coins.
Archibald and Cook 2001, no. 8; Allen 2001e, no. 7; Allen 2002a, no. 37; Allen 2012a, no. 179.

E10. Framlingham Castle, Suffolk, 1850 (1190s-1205)
Cross-and-Crosslets and Short Cross to classes 2-4; 166 coins.
Thompson 1956, no. 166; Allen 2001e, no. 2; Allen 2002a, no. 29; Allen 2004d; Allen 2012a, no. 180.

E11. London (St Thomas's Hospital), 1863 (1190s-1205)
Short Cross to classes 2-4; hoard or parcel of 26 coins (+ 2 *Cross-and-Crosslets* (*Tealby*) pence, possibly intrusive).
Boyne 1863; Allen 1951, lvi, lx; Thompson 1956, no. 251; Dolley 1958-9b, no. 1; Crafter 1998, no. 20; Allen 2001e, no. 3; Allen 2002a, no. 31; Allen 2012a, no. 181.

E12. Higham on the Hill, Leicestershire, 1607 (*c.* 1195-1247)
Short Cross to class 4a or later; *c.*250 coins + 2 gold rings + 1 silver ring.
Metcalf 1957, 192-4; Dolley 1958-9b, no. 6; Allen 2001e, no. 9; Allen 2002a, no. 39; Allen 2012a, no. 182.

E13. Canwell, Staffordshire, 1991 (*c.* 1200)
Short Cross to class 4a; 56 coins + 4 fragments.
Archibald and Cook 2001, no. 9; Allen 2001e, no. 8; Allen 2002a, no. 38; Allen 2012a, no. 183.

E14. Bainton, East Yorkshire, 1982 and 1998 (*c.* 1200-5)
Short Cross to class 4b; 145 coins. (12 silver Short Cross pennies)
TAR 1998-9, no. 335; Barclay 1999; *CH* 2000, no. 47; Archibald and Cook 2001, no. 10; Allen 2001e, no. 10; Allen 2002a, no. 41; Allen 2012a, no. 184. [Hull and East Riding Museum]

E15. Crowle, Worcestershire, before 1962 (*c.* 1200-5)
Short Cross to class 4b; parcel of 48 coins.
Brand and Thompson 1965; Allen 2001e, no. 11; Allen 2002a, no. 42; Allen 2012a, no. 185.

E16. Winchester (Wolvesey Palace), Hampshire, 1970 (*c.* 1200-5)
Short Cross to class 4b; 5 coins.
Dolley and Blunt 1977 138; Allen 2001e, no. 12; Allen 2002a, no. 40; Allen 2012a, no. 187.

E17. Natland, Cumbria, between 1980s and 1997 (*c.* 1200-16?)
Short Cross (latest attributed to King John) and Scottish (1); more than 77 coins.
Marsh 1996, 239; Marsh 1997; Allen 2002a, no. 45; Allen 2012a, no. 188.

E18. Bristol (St James's Priory), 1989 or 1995 (*c.* 1200-47)
Short Cross to class 4b or later; two coins.
Clarke 2006; Allen 2012a, no. 189.

E19. Cross on the Hill, Warwickshire, 1830 (1205-7?)
Short Cross to class 5b(?); *c.* 1000 coins + 1 gold ring + 1 silver seal.
Palmer and Seaby 1983-4; Allen 2001e, no. 13; Allen 2002a, no. 46; Allen 2012a, no. 190.

E20. Arnside (New Barns), Cumbria, 2000 (1205-*c.* 1220?)
Short Cross to class 5b1 and Scottish; 5 coins.
TAR 2000, no. 271; *CH* 2001, no. 78; Allen 2002a, no. 47; Allen 2012a, no. 191. [Abbot Hall Art Gallery and Museum, Kendal].

E21. East Walton, Norfolk, 2006 (1205-47?)
Short Cross to class 5 or 6; 2 silver coins.
TAR 2005/6, no. 1178; *CH* 2008, no. 61; Allen 2012a, no. 192.

E22. Sudbourne (or 'Mildenhall'; possibly also 'London'), Suffolk, 1879 (*c.* 1210)
Short Cross to class 5c; ?*c.* 2,600 coins.
Andrew 1903-4, 44-7; Thompson 1956, nos 267, 344; Dolley 1958-9b, no. 3; Dolley and Seaby 1968, no. C.2; Allen 2001e, nos 17, 44; Allen 2002a, nos 43, 53; Allen 2012a, no. 194.

E23. Barnoldswick, Lancashire, 2004 (*c.* 1210)
Short Cross to class 5c and Scottish; 21 coins.
TAR 2004, no. 461; *CH* 2007, no. 63; Allen 2012a, no. 195.

E24. Melcombe Horsey, Dorset, 2002 (*c.* 1210)
Short Cross to class 5c; 3 coins.
TAR 2002, no. 218; [Disclaimed; returned to finder]

E25. Udimore, East Sussex, 2005 (*c.* 1210)
Short Cross to class 5c; 2 coins.
TAR 2005/6, no. 1172.

E26. Bigby, Lincolnshire, 2007 (c1210)
Short Cross to class 5; 9 coins.
PATAR 2007, no. 545; *CH* 2009, no. 70; Allen 2012a, no. 196.

E27. Cawthorne (or 'near Barnsley'), Barnsley, 1856 (*c.* 1210)
Short Cross to class 6a(?); three parcels; more than 488 coins in total.
Pownall 1861; Boyne 1862; Thompson 1956, no. 393; Dolley 1958-9b, no. 8; Metcalf 1960-1, 123; Brand and Dolley 1963, 96-8; Allen 2001e, nos 14-15; Allen 2002a, no. 48; Allen 2012a, no. 197.

E28. Charlton, Kent, 1764 (*c.* 1210)
Short Cross to class 5c or later; *c.*300 coins.
Metcalf 1957, 190-2; Dolley 1958-9b, no. 6; Allen 2001e, no. 19; Allen 2002a, no. 49; Allen 2012a, no. 198.

E29. Waterlooville, Hampshire, 1984 (*c.* 1210)
Short Cross to class 5b2; 6 coins.
Archibald and Cook 2001, no. 11; Allen 2001e, no. 18; Allen 2002a, no. 54; Allen 2012a, no. 199.

E30. Unknown Site, before 1985 (*c.* 1210)
Short Cross to class 5c; hoard or parcel of *c.*144-154 coins.
Archibald and Cook 2001, no. 12; Allen 2001a, no. 160; Allen 2002a, no. 327; Allen 2012a, no. 200.

E31. Elton, Nottinghamshire, 1780 (*c.* 1210?)
Short Cross to class 5c or later and Scottish; 'above' 200 coins.
Dolley and Strudwick 1956, 298-9; Dolley 1958-9b, no. 7; Allen 2001e, no. 20; Allen 2002a, no. 50; Allen 2012a, no. 201.

E32. 'London', 1878? (*c.* 1210?)
Short Cross to class 5c or later; hoard or parcel of 28 coins; possibly a parcel of the Sudbourne hoard (no. E22).
Dolley 1967; Allen 2001e, no. 16; Allen 2002a, no. 51; Allen 2012a, no. 202.

E33. Southminster, Essex, 1986 (*c.* 1210-20?)
Short Cross to class 5b or 5c or later; *c.*28 coins.
Archibald and Cook 2001, no. 13; Allen 2001e, no. 21; Allen 2002a, no. 52; Allen 2012a, no. 203.

E34. Stockland, Devon, 1885 (*c.* 1210-20?)
Short Cross to class 5c or later; Irish and Scottish; 35 coins.
'Extraordinary discovery of coins at Stockland', *The Western Antiquary* 5 (1885-6), 60; Dolley 1967, 194; Dolley and Seaby 1968, no. C.1; Allen 2001e, no. 25; Allen 2002a, no. 58 Allen 2012a, no. 204.

E35. Teston, Kent, 1846 (*c.* 1210-20?)
Short Cross to class 5c or 6?; Scottish; 40 coins.
Bergne 1847-8; Thompson 1956, no. 354; Dolley 1958-9b, no. 5; Allen 2001e, no. 26; Allen 2002a, no. 59 Allen 2012a, no. 205.

E36. Wanborough, Surrey, 1999 (*c.* 1210-20?)
Short Cross to class 5 or 6; 5 silver pennies.
TAR 1998-9, no. 336; *CH* 2001, no. 79; Allen 2002a, no. 44 Allen 2012a, no. 206.

E37. Fillongley, Warwickshire, 1997 (*c.* 1215)
Short Cross to class 6b2; Irish, Scottish and Continental; 66 coins + 49 fragments + 1 silver ring + 2 silver brooches.
Wise 1997; *TAR* 1997-8, no. 145; Wise 1999; Allen 2001e, no. 22; Allen 2002a, no. 55 Allen 2012a, no. 207.

E38. Loxbeare, Devon, 1980 (*c.* 1215)
Short Cross to class 6b2; Welsh (Rhuddlan) and Continental; 17 coins.
Shiel 1985; Allen 2001e, no. 23; Allen 2002a, no. 56 Allen 2012a, no. 208.

E39. Sandwich (St Bartholomew's Hospital), Kent, 1882 (*c.* 1215)
Short Cross (39) to class 6b2 and Scottish (1)
Wanostrocht 1992; Allen 2001e, no. 24; Allen 2002a, no. 57; Allen 2012a, no. 210.

E40. Norton Subcourse, Norfolk, 2002 (*c.* 1215-1247)
Short Cross to class 6c; 4 pennies.
TAR 2002, no. 219; Allen 2012a, no. 212 [Disclaimed; returned to finder]

E41. Claxby, Lincolnshire, 1983 (*c.* 1217)
Short Cross to class 6c3 and Scottish; 28 coins.
Archibald and Cook 2001, no. 14; Allen 2001e, no. 27; Allen 2002a, no. 60 Allen 2012a, no. 213.

E42. Tockholes, Blackburn with Darwen, 1973 (*c.* 1218)
Short Cross to class 7Ab and Scottish; 60 coins.
CH 1 (1975), no. 361; Archibald and Cook 2001, no. 15; Allen 2001e, no. 28; Allen 2002a, no. 61 Allen 2012a, no. 214.

E43. Clifton (or 'Swinton'), Lancashire, 1947 (mid-1220s)
Short Cross to class 7b; Irish, Scottish and Continental; 72 coins.
Carson 1947; Metcalf 1960-1, no. 50; Dolley and Seaby 1968, no. C.3; Allen 2001e, no. 29; Allen 2002a, no. 62 Allen 2012a, no. 215.

E44. York Minster (North Choir Aisle), between 1829 and 1832 (mid-1220s)
Short Cross to class 7b and Scottish; 76 coins.
Metcalf 1960-1, no. 57; Brand and Dolley 1963; Allen 2001e, no. 30; Allen 2002a, no. 63; Allen 2012a, no. 216.

E45. Eccles, Salford, 1864 (1230)
Short Cross to class 7Bb; Welsh (Rhuddlan), Irish, Scottish and Continental; 6,230 coins.
Vaux 1865; Andrew 1903-4, 33-44, 46-7; Dolley 1952-4a; Thompson 1956, no. 152; Dolley 1958-9b, no. 10; Brand 1964a; Brand 1968; Dolley and Seaby 1968, no. C.6; Stewart 1980; *CH* 7 (1985), no. 550; Stewartby 1993; Allen 2001e, no. 31; Allen 2002a, no. 64; Allen 2012a, no. 217.

E46. Hickleton, Doncaster, 1946 (*c.* 1230)
Short Cross to class 7; Irish and Scottish; 15 coins.
Smedley 1946; Thompson 1956, no. 189; Dolley 1958-9b, no. 9; Dolley and Seaby 1968, no. C.4; Allen 2001e, no. 32; Allen 2002a, no. 65; Allen 2012a, no. 218.

E47. Shelly, Solihull, 1989-90 (*c.* 1230)
Short Cross to class 7Ba; Irish and Continental; 15 coins.
Seaby 1990; Seaby 1995, 77-9; Allen 2001e, no. 33; Allen 2002a, no. 66; Allen 2012a, no. 219.

E48. Holbeach, Lincolnshire, 1953-4 (*c.* 1230-1247)
Short Cross to class 7Ba; hoard or parcel of 6 coins.
Unpublished; coins in the Fitzwilliam Museum. Allen 2012a, no. 220

E49. Borrowby, North Yorkshire, 2004 (mid-1230s)
Short Cross to class 7Bd; 38 coins + 5 fragments.
TAR 2004, no. 462; *CH* 2007, no. 64; Allen 2012a, no. 223.

E50. Seasalter, **Kent**, 1986-*c.*1989 (mid-1230s)
Short Cross to class 7b and Scottish; 31 coins.
Archibald and Cook 2001, no. 16; Allen 2001e, no. 34; Allen 2002a, no. 67; Allen 2012a, no. 221.

E51. Wellow, Somerset, 2007 (mid/late 1230s)
Short Cross to class 7Bd and Scottish; 16 coins.
PATAR 2007, no. 547; *CH* 2009, no. 71; Allen 2012a, no. 224.

E52. Northop, Flintshire, Wales, 2000 (*c.* 1236-1247)
Short Cross to class 7Ca; 3 coins
TAR 2000, no. 272; Allen forthcoming, no. 15. [Flintshire County Council Museums Service].

E53. Colchester, Essex, 1902 (1237)
Short Cross to class 7Ca; Welsh (Rhuddlan), Irish, Scottish and Continental; more than 10,927 coins.
Grueber 1903; Andrew 1903-4, 32-44, 46-7; Rickwood 1903-4; Thompson 1956, no. 94; Dolley 1958-9b, no. 11; Mack 1966, 107; Dolley and Seaby 1968, no. C.5; Stewart 1980; Blackburn 1994, no. 27; Allen 2001e, no. 35; Allen 2002a, no. 68; Allen 2012a, no. 225.

E54. 'Northern England', *c.*1992 (*c.* 1240)
Short Cross to class 7c; hoard or parcel of 42 coins.
Allen 2001e, no. 162; Allen 2002a, no. 69; Allen 2012a, no. 226.

E55. Spixworth, Norfolk, 1998 and 2000 (*c.* 1240)
Short Cross to class 7Cb and Irish; 19 coins + 1 fragment.
TAR 1998-9, no. 337; *TAR* 2000, no. 273; *CH* 2000, no. 48; *CH* 2001, no. 80; Allen 2001e, no. 36; Allen 2002a, no. 70; Allen 2012a, no. 227.

E56. 'Nicoll', in or before 1946 (*c.* 1240?)
Short Cross, including Continental imitations; uncertain no. of coins.
Stewartby 1995, 223-4; Allen 2001a, no. 163; Allen 2002a, no. 328; Allen 2012a, no. 228.

E57. Llanharry, Rhondda, Cynon Taf, Wales, 2007 (1236-47)
English Short Cross to 7c: 8 coins.
PATAR 2007, no. 553; *CH* 2009, no. 72; Allen forthcoming, no. 14.

E58. Taddington, Derbyshire, 1958 (*c.* 1240-1247)
Short Cross to class 7c; 8 coins.
Dolley 1958-9b, no. 12; Allen 2001e, no. 37; Allen 2002a, no. 71; Allen 2012a, no. 229.

E59. Wrexham (312 Chester Road), Wales, 1926 (*c.* 1245)
Short Cross to 8b; Irish, Scottish and Continental; 71 coins (of 120?)
Lewis 1970; Boon 1986: 105-9; Allen forthcoming, no. 16.

E60. Leconfield (or 'Beverley area'), East Yorkshire, 2000 (*c.* 1245)
Short Cross to class 8c; Irish, Scottish and Continental; 448 silver pennies and 27 cut halfpennies
TAR 2000, no. 274; *CH* 2001, no. 81; Allen 2001e, no. 38; Allen 2002a, no. 72; Allen 2012a, no. 231.

E61. Bedfordshire, in or shortly before 1850 (1180-1247)
Short Cross; more than 2,000 coins.
Journal of the British Archaeological Association 6 (1850), 150; Allen 2001e, no. 40; Allen 2002a, no. 23; Allen 2012a, no. 233.

E62. Earl Soham, Suffolk, 1823 (1180-1247)
Short Cross; uncertain no. of coins.
Ipswich Journal 24 May 1823; Newman 2002, 7; Allen 2002a, no. 24; Allen 2012a, no. 234.

E63. Enfield, 1863 (1180-1247)
Short Cross; more than 5 coins.
Thompson 1956, no. 155; Allen 2001e, no. 41; Allen 2002a, no. 25; Allen 2012a, no. 235.

E64. Hadleigh area, Suffolk, mid-1990s (1180-1247)
Short Cross; 4 coins.
Allen 2002a, no. 26; Allen 2012a, no. 236.

E65. Hockwold cum Wilton, Norfolk, 1861 (1180-1247)
Short Cross, including class 1a4; *c.*500 coins.
Thompson 1956, no. 191; *SCBI* 26, 1697; Allen 2001e, no. 42; Allen 2002a, no. 27; Allen 2012a, no. 237.

E66. Marlborough, Wiltshire, 1911 (1180-1247)
Short Cross; uncertain no. of coins.
CH 2 (1976), no. 450; Allen 2001e, no. 43; Allen 2002a, no. 28; Allen 2012a, no. 238.

E67. Harwich, Essex, *c.*1880 (1180-13th century: 1215?)
French *deniers*; *c.* 20 coins.
Marsden 1884; Thompson 1956, no. 185; Allen 2002a, no. 73; Allen 2012a, no. 239.

Period VI (1247-79)

F1. Great Waldingfield, Suffolk, 2000 (*c.* 1250)
Long Cross to class 3b; 6 coins.
TAR 2000, no. 275; *CH* 2001, no. 83; Allen 2002a, no. 76; Allen 2012a, no. 240.

F2. Bristol (St Bartholomew's Hospital), 2000 (*c.* 1250)
Long Cross to class 3c or 4; 3 coins.
TAR 2000, no. 275; *CH* 2001, no. 83; Allen 2002a, no. 76.

F3. Colchester, Essex, 1969 (1256 (part 1) and early/mid-1270s (part 2))
Short Cross and Long Cross to class 5c (part 1) and class 6 (part 2); Irish, Scottish and Continental; *c.* 14,076 coins.
Archibald and Cook 2001, no. 20; Allen 2012a, no. 241

F4. Hambleton, Rutland, 1975 (1256-1279)
Long Cross to class 5c; 6 coins.
CH 2 (1976), no. 452; Allen 2002a, no. 78; Allen 2012a, no. 242.

F5. Welwyn Garden City, Hertfordshire, 1992 (*c.* 1260)
Long Cross to class 5g and Scottish; 46 coins.
Archibald and Cook 2001, no. 18; Allen 2002a, no. 79; Allen 2012a, no. 243.

F6. Uncertain location, 1930s? (c. 1260)
Long Cross to class 5g, Irish and Continental; hoard or parcel of 173 coins.
TAR 2005/6, no. 1174; MacKay 2008; *CH* 2008, no. 58; Spink sale, 26 June 2008, lots 632-69; Allen 2012a, no. 244.

F7. Baschurch area, Shropshire, 2007 (1260s)
Long Cross to class 5g and Scottish; 193 coins.
TAR 2007, no. 549; *CH* 2009, no. 74; Reavill 2009; Allen 2012a, no. 245.

F8. Beddgelert Churchyard, Caerrnarvonshire, 1853 (1247-79)
English Long Cross (only?); 24 coins.
Thompson 1956, no. 39; Allen forthcoming, no. 17.

F9. Corley, Warwickshire, 2007 (1260s)
Long Cross to class 5g and Irish; 170 coins.
PATAR 2007, no. 548; *CH* 2009, no. 73; Allen 2012a, no. 246.

F10. Hornchurch, Havering, 1938 (1260s)
Long Cross to class 5g; Irish, Scottish and Continental; 448 coins.

Allen 1938-41a; Thompson 1956, no. 193; Dolley and Seaby 1968, no. C.8; Allen 2001e, no. 46; Allen 2002a, no. 80; Allen 2012a, no. 247.

F9. Palmer's Green, Kent, 1911 (1260s)

Long Cross to class 5g; Irish and Scottish; 217 coins.

Grueber 1912; Thompson 1956, nos 247-8; Allen 2002a, no. 81; Allen 2012a, no. 248.

F10. Thwaite, Suffolk, 1998 (1260s)

Short Cross and Long Cross to 5g and Continental; 18 pennies, 5 cut halfpennies + 3 lead seal matrices.

TAR 1998-9, no. 340; *CH* 1999, no. 49; Allen 2001e, no. 47; Allen 2002a, no. 82; Allen 2012a, no. 249. [Westphalian coin and seal matrices acquired by the BM]

F11. Tower Hill, London, 1869 (1260s)

Long Cross to class 5g or 5h; Irish and Scottish; hoard or parcel of 306 coins + possible parcel of 33 coins.

Evans 1869; Thompson 1956, no. 254; Dolley and Seaby 1965; Manville 1995, 172; Allen 2002a, no. 83; Allen 2012a, no. 250.

F12. Winchester (Cathedral Car Park), Hampshire, 1961 (1260s)

Long Cross to class 5g; Irish and Continental; 20 coins.

Dolley 1961a; Allen 2002a, no. 84; Allen 2012a, no. 251.

F13. Marsden, Kirklees, 1923 and in or before 1947 (1260s-1279)

Long Cross to class 5g, 5h or 5i; 8 coins.

Teasdill 1961, 32-3; Allen 2002a, no. 85; Allen 2012a, no. 252.

F14. Newark on Trent, Nottinghamshire, 1881 (1260s-1279)

Long Cross to class 5g or 5h; 39 coins + 17 fragments.

Toplis 1881; Thompson 1956, no 279; Allen 2002a, no. 86; Allen 2012a, no. 253.

F15. Oakham, Rutland, 1990 (1260s-1279)

Long Cross to class 5g and Irish; 27 coins.

Clough 1994; Allen 2002a, no. 87; Allen 2012a, no. 254.

F16. Coventry (Upper York Street), 1958 (*c.* 1270)

Long Cross to class 5h; Irish, Scottish and Continental; 228 coins.

Dolley 1958a; Allen 2002a, no. 88; Allen 2012a, no. 255.

F17. Steppingley, Bedfordshire, 1912 (*c.* 1270)

Short Cross and Long Cross to class 5g; Irish, Scottish and Continental; 531 coins.

Lawrence and Brooke 1914; Thompson 1956, no. 342; Dolley and Seaby 1968, no. C.11; Allen 2001e, no. 48; Allen 2002a, no. 89; Allen 2012a, no. 256.

F18. Greywell, Hampshire, 1988 and 1993 (1270s)

Long Cross to class 5h; Irish and Scottish; 110 coins + 6 fragments.

Archibald and Cook 2001, no. 19; Allen 2002a, no. 90; Allen 2012a, no. 257.

F19. Morley St Botolph, Norfolk, 1999 (late 1270s)

Long Cross to class 7 and Scottish; 4 pennies, 17 cut halfpennies.

TAR 1998-9, no. 339; *CH* 2000, no. 49; Allen 2002a, no. 91; Allen 2012a, no. 258. [Disclaimed, returned to finder]

F20. Cambridge (Dolphin Inn), Cambridgeshire, 1817 (1247-79)

Long Cross; uncertain no. of coins + gold rings (5 described) + 1 broken gold ornament + 1 gold and silver brooch + 1 silver-mounted

piece of coral + other items?
CH 4 (1978), no. 355; Manville 1993, no. 68a; Allen 2001e, no. 173; Allen 2002a, no. 75; Allen 2012a, no. 259.

F21. Wilmington, **Devon**, **East Sussex**, **Kent or Shropshire**, in or shortly before 1746 (1247-79?)
Pennies of 'King Henry III' (Long Cross?); uncertain no. of coins.
Metcalf 1958, 85; Allen 2001e, no. 181; Allen 2002a, no. 74; Allen 2012a, no. 260.

Period VII (1279-1351)

G1. Huggate, East Yorkshire, 2006 (1279-1351?)
English (only?); c37 coins.
TAR 2005/6, no. 1176; *CH* 2008, no. 59; Allen 2012a, no. 261.

G2. Northampton, Northamptonshire, 1873 (1280s)
English to Edward I (no later than class 3?) and Scottish; 199 silver coins.
Neck 1882; Burns 1887, I, 188-9, 192, 209, 228-9; Thompson 1956, no. 290; Dolley 1968, no. 131; North 1989, no. 66; Allen 2002a, no. 99; Allen 2003, no. 245/E; Allen 2012a, no. 262.

G3. Coventry (Hales Street), 1847 (1280-*c.*1300)
English to Edward I class 3g or later; Irish and Scottish; 100-200 silver coins.
Thompson 1956, no. 102; Dolley 1968, no. 18; Dolley and Seaby 1968, no. C.14; North 1989, no. 24; Allen 2002a, no. 102; Allen 2003, no. 89/E; Allen 2012a, no. 263.

G4. Long Meadow, Cambridgeshire, 1995 (1280-1351)
English to Edward I class 2ab or later; 5 silver coins.
Dix Noonan Web, 20 June 2001, lot 354 (part); Allen 2002a, no. 97; Allen 2012a, no. 264.

G5. Willingale, Essex, 2005 (1280-1351)
English (only?) to Edward I class 3e or later; c20-25 coins.
TAR 2005/6, no. 1185; *CH* 2008, no. 68; Allen 2012a, no. 265.

G6. Barnard Castle Moor, Durham, in or before 1794 (*c.*1280-1351)
Scottish (and English?); uncertain no. of silver coins.
Hutchinson 1785-94, III, 234 n. and pl. facing; Metcalf 1960-1, no. 1; Allen 2002a, no. 98; Allen 2012a, no. 266.

G7. Benacre, Suffolk, 1767 (1280-1351?)
English attributed to Edward I and II and Irish; nearly 400 silver coins.
GM 37 (Nov. 1767): 558 bis; Manville 1993a, no. 41a; Allen 2002a, no. 161; Cherry 2000, no. 3; Allen 2003, no. 39/E; Allen 2012a, no. 267.

G8. Rugeley, Staffordshire, 2005 (1280-1351?)
Scottish; 2 coins.
TAR 2005/6, no. 1180; *CH* 2008, no. 63; Allen 2012a, no. 268.

G9. Gelli-Cadwgan Farm, Llanfarred, *c.* 1770 (*c.* 1280-1351)
English attributed to Edward I; near 200 coins.
Boon 1986: 113.

G10. Skipton Castle, North Yorkshire, 1958 (*c.*1283-1300?)
English to Edward I class 4b; Irish and Scottish; 5 silver coins.

Dolley 1959; Dolley 1968, no. 62; Dolley and Seaby 1968, no. C.16; Manville 1995, 174 (no. 331a); Allen 2002a, no. 100; Allen 2003, no. 287/E; Allen 2012a, no. 269.

G11. Hartlepool, in or before 1841 (*c.*1283-1351?)

English to class 4b or later and Scottish; uncertain no. of silver coins.

Metcalf 1960-1, no. 18; Dolley 1968, no. 124; Allen 2002a, no. 162; Allen 2003, no. 154/E; Allen 2012a, no. 270.

G12. Bowness, Cumbria, 1884 (*c.*1287-1300?)

English to Edward I class 4e and Scottish; 21 or 22 silver coins.

Ferguson and Keary 1885, 207-8; Ferguson 1885-6, 381; Thompson 1956, no. 50; Dolley 1968, no. 129; Allen 2002a, no. 101; Allen 2003, no. 50/E; Allen 2012a, no. 271.

G13. Rendham, Suffolk, 2006 (*c.* 1290)

English to Edward I class 4e; 8 coins.

TAR 2005/6, no. 1177; *CH* 2008, no. 60; Allen 2012a, no. 275.

G14. Broughton, Hampshire, 1964 (*c.*1290)

English to Edward I class 5b; Irish, Scottish and Continental; 332 silver coins.

North 1966; Dolley 1968, no. 13; Dolley and Seaby 1968, no. C.17; Mayhew 1983, no. 19; North 1989, no. 12; Allen 2002a, no. 103; Allen 2003, no. 58/E; Allen 2012a, no. 272.

G15. Coventry (Coventry and Warwickshire Hospital), 1937 (*c.*1290)

English to Edward I class 5; Irish, Scottish and Continental; *c.*500 silver coins + 2 silver brooches. 144 listed.

Allen 1938-41b; Thompson 1956, no. 103; Dolley 1968, no. 19; Dolley and Seaby 1968, no. C.15; Mayhew 1983, no. 28; North 1989, no. 25; Allen 2002a, no. 104; Allen 2003, no. 90/E; Allen 2012a, no. 273.

G16. King's Lynn, Norfolk, 1972 (*c.*1290). Excavation find.

English to Edward I class 5; Irish, Scottish and Continental; 41 silver coins. 28 pennies; 3 halfpennies.

CH 1 (1975), no. 363; Mayhew 1983, no. 65; North 1989, no. 47; Allen 2002a, no. 105; Allen 2003, no. 179/E; Allen 2012a, no. 274.

G17. Skegby, Nottinghamshire, 1967 (*c.*1290)

English to class 5a; Irish and Scottish; 450 silver coins.

Archibald 1971b; North 1989, no. 73; Allen 2002a, no. 106; Allen 2003, no. 285/E; Allen 2012a, no. 276.

G18. Cae Castell, Rumney, Cardiff, 1980 (early 1290s)

English to Edward I class 4e; Irish, Scottish and Continental; 64 coins.

CH VII, no. 552; Boon 1986: 83-90.

G19. East Langdon (or 'Kent'), **Kent**, 1992 (early/mid-1290s)

English to Edward I class 7a; Irish and Scottish; 34 silver coins.

Allen 2002a, no. 109; Allen 2003, no. 128/E; Allen 2012a, no. 277.

G20. Ickfield (or Wingham), **Kent**, 1990-1 (early/mid-1290s)

English to Edward I class 7a; Irish and Scottish; 502 silver coins.

Allen 2002a, no. 110; Allen 2003, no. 165/E; Allen 2012a, no. 278.

G21. Dover, **Kent**, 1955 (mid/late 1290s; 1295?)

English to Edward I class 8; Irish, Scottish and Continental; 686 silver coins.

Dolley 1955; Dolley with Lasko 1955-7; Dolley 1968, no. 26; Dolley and Seaby 1968, no. C.19; Mayhew 1983, no. 35; North 1989, no. 31; Mayhew 1997, 340-3; Allen 2002a, no. 108; Allen 2003, no. 107/E; Allen 2012a, no. 279.

G22. Beverley (Dominican Priory), East Yorkshire, between 1986 and 1989 (1292-1351)
English to Edward I class 2a and Scottish; 5 silver coins.
Archibald 1996: 173-4; Allen 2002a, no. 140; Allen 2003, no. 42/E; Allen 2012a, no. 280.

G23. Derwen, Wales, 1877 (1279-1351?)
English; several hundred silver coins, £8 (by weight?)
Boon 1986: 113-4; Allen forthcoming, no. 22.

G24. London (near St Antholin's Church), 1873 (1295-mid-14th century)
French; uncertain no of billon coins.
NC[2] 13 (1873), Proceedings, 7; Thompson 1956, no. 240; Allen 2002a, no. 107; Allen 2012a, no. 281.

G25. Watford, **Northamptonshire**, 1985 or 1986 (*c.*1300?)
English attributed to Edward I (25) and Scottish (3); 28 silver pennies.
Dix 1986-7, 158; Allen 2002a, no. 115; Allen 2012a, no. 282.

G26. Wallington, Sutton, in or before 1933 (1300-*c.*1310)
English to Edward I/II class 10 and Scottish; 37 silver coins.
Surrey Archaeological Collections 41 (1933), 137; 'Coins found in Manor House, Wallington'**,** *Surrey Archaeological Collections* 42 (1934), 116-17; Allen 2002a, no. 114; Allen 2003, no. 313/E; Allen 2012a, no. 283.

G27. Pluckley, Kent, 2005 (1300-*c.* 1310?)
English to Edward I class 9b; 4 silver coins.
TAR 2005/6, no. 1181; *CH* 2008, no. 64; Allen 2012a, no. 284.

G28. Chester (Lion Brewery), Cheshire, in or shortly before 1899 (1300-51)
English attributed to Edward I and II; 24 silver coins.
Manville 1995, 171 (no. 88a); Allen 2002a, no. 111; Allen 2003, no. 77/E; Allen 2012a, no. 285.

G29. Derwentwater, Cumbria, between 1856 and 1862 (1300-51)
English to Edward I/II class 10 or later and Irish; 34 silver coins.
Transactions of the Cumberland and Westmorland Archaeological and Antiquarian Society new ser. 3 (1903), 408; Collingwood 1904, 273-4; Metcalf 1960-1, no. 11; Dolley 1968, no. 24; Dolley and Seaby 1968, no. C.39; North 1989, no. 29; Allen 2002a, no. 112; Allen 2003, no. 101/E; Allen 2012a, no. 286.

G30. Hesleyside (Shaw Moss), Northumberland, 1852 (1300-51)
English to Edward I/II class 10 or later; Irish, Scottish and Continental; 340 silver coins.
Bronze tripod vessel
Longstaffe 1865: 104; Thompson 1956, no. 186; Metcalf 1960-1, no. 47; Dolley 1968, no. 31; Dolley and Seaby 1968, no. C.28; Mayhew 1983, no. 55; North 1989, no. 44; Cherry 2000, no. 11; Allen 2002a, no. 123; Allen 2003, no. 156/E; Allen 2012a, no. 287.

G31. Newbury, West Berkshire, 1756 (1300-51)
English to Edward I class 9b or later; Irish, Scottish and Continental; hoard or parcel of 3,530 silver coins.
Snelling 1763, 13 n. 'o', figs A-D; Thompson 1956, no. 280; Dolley 1968, no. 46; Dolley and Seaby 1968, no. C.59; Mayhew 1983, no. 87; North 1989, no. 63; Allen 2002a, no. 121; Allen 2003, no. 238/E; Allen 2012a, no. 288.

G32. Newcastle upon Tyne (Butcher Bank), 1860 (1300-51)
English attributed to Edward I and II; parcel of 8 silver coins.
'Coins found at Newcastle', *Archaeologia Æliana* new ser. 5 (1861), 169; Thompson 1956, no. 282; Dolley 1968, no. 47; Dolley and Seaby 1968, no. C.18; Allen 2002a, no. 113; Allen 2003, no. 240/E; Allen 2012a, no. 289.

G33. Silverdale, Lancashire, 1997 (1300-51)

English to 'Edward I or II' and Irish; 16 silver coins.
CH 1998, no. 42; Allen 2002a, no. 139; Allen 2012a, no. 290.

G34. Thrapston, **Northamptonshire**, 1778 (1300-51)
English to Edward I/II class 10 or later; Irish, Scottish and Continental; parcel of 360 silver coins.
Noble 1780, 90-1; Dolley 1968, no. 65; Thompson 1956, no. 359; Dolley and Seaby 1968, no. C.27; Mayhew 1983, no. 111; North 1989, no. 77; Allen 2002a, no. 119; Allen 2003, no. 294/E; Allen 2012a, no. 291.

G35. Lincolnshire, in or shortly before 1800 (*c.*1305-10)
English to Edward I class 10ab6 or later; Irish, Scottish and Continental; hoard or parcel of silver 1,142 coins.
Mayhew 1978; Mayhew 1983, no. 72; Allen 2002a, no. 117; Allen 2003, no. 199/E; Allen 2012a, no. 292.

G36. Newminster Abbey, Northumberland, 1925 (*c.* 1305-10)
English to Edward I/II class 10cf; Irish, Scottish and Continental; 486 silver coins.
Brooke 1927b; Thompson 1956, no. 286; Dolley 1968, no. 48; Dolley and Seaby 1968, no. C.25; Mayhew 1983, no. 89; North 1989, no. 64; Allen 2002a, no. 118; Allen 2003, no. 241/E; Allen 2012a, no. 293

G37. Rothersthorpe, **Northamptonshire**, 1996 (*c.* 1305-10)
English to Edward I/II class 10cf; Irish and Scottish; 32 silver coins.
TTRCAR 1996-7, no. 31; *CH* 1997, no. 54; Allen 2002a, no. 124; Allen 2003, no. 273/E; Allen 2012a, no. 294.

G38. Avebury, Wiltshire, 1937 (*c.*1305-1351)
English to Edward I/II class 10cf and Continental; 3 silver coins.
Thompson 1965; Dolley 1968, no. 132; Mayhew 1983, no. 7; Allen 2002a, no. 136; Allen 2003, no. 20/E; Allen 2012a, no. 295.

G39. Great Yarmouth (or Yarmouth), Norfolk, 1857 (*c.*1305-1351)
English to Edward I class 10ab6 or later and Scottish; 700-1,000 silver coins.
Norfolk Archaeology 5 (1859), 358-60; Allen 2002a, no. 116; Allen 2003, no. 326/E; Allen 2012a, no. 296.

G40. East Clandon, Surrey, 2003 (*c.* 1306-7)
English to class 10cf2b; Irish and Scottish; 42 silver coins.
TAR 2003, no. 393; *CH* 2004, no. 19; Allen 2012a, no. 297.

G41. Deopham area, Norfolk, 2007 (*c.* 1306-?1320)
English to class 10cf2b and Irish; 6 silver coins.
PATAR 2007, no. 550; *CH* 2009, no. 75. [Norwich Castle hopes to acquire]

G42. Mayfield, **East Sussex**, 1968 (*c.*1307-9)
English (Edward I/II class 10cf3) and French; 355 silver coins.
Archibald 1971a; North 1989, no. 54; Allen 2002a, no. 120; Allen 2003, no. 215/E; Allen 2012a, no. 299.

G43. Oxford (Town Hall), Oxfordshire, 1751 (after 1309)
Continental; hoard or parcel of 2 silver coins.
Manville 1993a, 101 (no. 301a); Manville 1993b, 82; Allen 2002a, no. 164; Allen 2012a, no. 300.

G44. Ysceifiog, Flintshire, 2007 (*c.* 1310-51)
English to Edward II class 11; 3 silver coins.
PATAR 2007, no. 554; *CH* 2009, no. 76; Allen forthcoming, no. 29.

G45. West Whelpington, Northumberland, 1976 (*c.*1310-1351)

English to Edward II class 11; 5 silver coins.
CH 4 (1978), no. 361; Allen 2002a, no. 122; Allen 2003, no. 317/E; Allen 2012a, no. 301.

G46. Middridge, **Durham**, 1974 (*c.*1311)
English to Edward II class 11a; Irish, Scottish and Continental; 3,072 or 3,080 silver coins.
CH 1 (1975), no. 365; *CH* 2 (1976), no. 453; *CH* 3 (1977), no. 329; Mayhew 1983, no. 80; Stewart 1989; North 1989, no. 56; Allen 2002a, no. 125; Allen 2003, no. 219/E; Allen 2012a, no. 302.

G47. Whittonstall, Northumberland, 1958 (*c.*1311)
English to Edward II class 11a; Irish, Scottish and Continental; 1,206 silver coins.
Dolley and Tatler 1963; Dolley 1968, no. 67; Dolley and Seaby 1968, no. C.32; Mayhew 1983, no. 117; North 1989, no. 79; Allen 2002a, no. 126; Allen 2003, no. 320/E; Allen 2012a, no. 303.

G48. Upper Killay, Swansea, Wales, 2002 (c1311)
English to Edward II class 11a1; 3 coins.
TAR 2002, no. 220; Allen forthcoming, no. 28. [Swansea Museum]

G49. Abbey Town (Holme Cultram parish), Cumbria, in or shortly before 1895 (*c.*1312-14)
English to Edward II class 11b; Scottish and Continental; 81 silver coins.
North 1976; *CH* 2 (1976), no. 454; Mayhew 1983, no. 56; North 1989, no. 45; Allen 2002a, no. 130; Allen 2003, no. 159/E; Allen 2012a, no. 304.

G50. Gorefield, Cambridgeshire, 1998 (*c.*1312-14)
English to class 11b3; Irish, Scottish and Continental; 1,084 silver coins (face value: £4 8s.6½d)
TAR 1998-9, no. 341; *CH* 1999, no. 50; Allen 2002a, no. 128; Allen 2012a, no. 306. [BM (127 coins), Wisbech and Fenland Museum (10 coins) and Fitzwilliam Museum (4 coins), rest to finders]

G51. Ilkley Moor (Weary Hill), Bradford, 1967 (and 1960-1?) (*c.*1312-14)
English to Edward II class 11b; Scottish and Continental; 43 (+6?) silver coins.
Transactions of the Yorkshire Numismatic Society 2nd ser. 2 (1) (1964), 41; Radley 1967-70, 113; Mayhew 1983, no. 59; Manville 1995, 172 (no. 195b); Allen 2002a, no. 132; Allen 2003, no. 166/E; Allen 2012a, no. 307.

G52. Carlidnack, Cornwall, in or shortly before 1965 (*c.*1312-1351)
English to Edward II class 11b; 4 silver coins.
Dowson 1971; Allen 2002a, no. 127; Allen 2012a, no. 309.

G53. Newport, Isle of Wight, 1849 (*c.*1314-1344)
English to class 13 or later; Irish, Scottish and Continental; more than 3,000 silver coins.
'Discovery of English coins in the Isle of Wight', *NC* 13 (1850-1), 140-2; 'Foreign sterlings found in the Isle of Wight', *NC* 13 (1850-1), 206; Kell 1852, 325-7; Thompson 1956, no. 287; Dolley 1968, no. 49; Dolley and Seaby 1968, no. C.60; Mayhew 1983, no. 90; North 1989, no. 65; Allen 2002a, no. 150; Allen 2003, no. 242/E; Allen 2012a, no. 310.

G54. Wyke, Bradford, 1836 (*c.*1314-1344)
English to class 13 or later; Irish, Scottish and Continental; *c.*2,000 (?) silver coins.
Sharpe and Haigh 1840; Thompson 1956, no. 382; Dolley 1968, no. 68; Dolley and Seaby 1968, no. C.63; Mayhew 1983, no. 120; North 1989, no. 80; Manville 1993a, 104; Allen 2002a, no. 151; Allen 2003, no. 324/E; Allen 2012a, no. 311.

G55. Thame, Oxfordshire, 1889 (1314-51)
English attributed to Edward I and II; Irish, Scottish and Continental; more than 500 silver coins.
Talbot 1890; *CH* 4 (1978), no. 366; Mayhew 1983, no. 109; Allen 2002a, no. 129; Allen 2003, no. 293/E; Allen 2012a, no. 312.

G56. South Elmham, **Suffolk**, 1998 (mid-1310s?)
English to Edward II class 11c and Scottish; 19 silver pennies.
TAR 1998-9, no. 342; *CH* 1999, no. 52; Allen 2002a, no. 133; Allen 2012a, no. 313. [Disclaimed, returned to finders]

G57. Boston, Lincolnshire, 1984 (mid/late 1310s)
English to Edward II class 13; 26 silver coins.
Allen 2002a, no. 131; Allen 2003, no. 49/E; Allen 2012a, no. 314.

G58. Low Apley, Lincolnshire, 2007 (*c.*1317-19)
English to Edward II class 14; 31 coins. From a well. 2 Edward III coins were not part of this hoard.
Arch Camb 1912: 168; Boon 1986: 112-4, 119-21; Allen 2012a, no. 317.

G59. Caernarvon Castle, Wales, 1911 (*c.* 1320)
English to Edward II class 14; 31 coins. From a well. 2 Edward III coins were not part of this hoard.
Arch Camb 1912: 168; Boon 1986: 112-4, 119-21; Allen forthcoming, no. 30.

G60. East Bergholt, **Suffolk**, 2000 (*c.*1317-1351)
English to Edward II class 14; 8 silver pennies and 3 halfpennies.
TAR 2000, no. 276; *CH* 2001, no. 84; Allen 2002a, no. 134; Allen 2012a, no. 318.

G61. Warkworth, Northumberland, 2005 (*c.* 1317-1351)
English to Edward II class 14; 6 silver coins.
TAR 2005/6, no. 1182; *CH* 2008, no. 65; Allen 2012a, no. 319.

G62. Doveridge (or Ashbourne), Derbyshire, 1987 (*c.*1319-1320s)
English to Edward II class 15a or 15b; 61 silver coins.
Allen 2002a, no. 135; Allen 2003, no. 108/E; Allen 2012a, no. 320.

G63. Scotton, North Yorkshire, 1924 (*c.*1319-1344)
English to class 15; Irish, Scottish and Continental; 319 coins + uncertain no. of fragments.
Brooke 1924; Sheppard 1925; Thompson 1956, no. 325; Dolley 1968, no. 60; Dolley and Seaby 1968, no. C.62; Mayhew 1983, no. 101; North 1989, no. 72; Manville 1995, 174; Allen 2002a, no. 149; Allen 2003, no. 283/E; Allen 2012a, no. 321.

G64. Downham, Essex, 1999 (*c.*1320-1351)
English to Edward II class 15b and Continental; 9 silver pennies.
TAR 1998-9, no. 346; *CH* 2000, no. 50; Allen 2002a, no. 137; Allen 2012a, no. 322. [Chelmsford Museum Service]

G65. Gainsborough, Lincolnshire, 1985 (*c.*1320-1351)
English to Edward II class 15b; 7 silver coins.
Allen 2002a, no. 138; Allen 2003, no. 138/E; Allen 2012a, no. 323.

G66. Neath Abbey II, Glamorgan, Wales, 1957 (*c.* 1320-)
English to Edward II class 15b; Irish and Continental; 66 coins.
Dolley 1955-7c: Boon 1986: 109-19; Allen forthcoming, no.33.

G67. Boyton, Wiltshire, 1935 (*c.* 1321)
English to Edward II class 15b/15c mule; Irish, Scottish and Continental; 4,155 silver coins.
Allen with Dunning 1936; Thompson 1956, no. 51; Dolley 1968, no. 12; Dolley and Seaby 1968, no. C.55; Mayhew 1983, no. 18; North 1989, no. 13; Saunders and Saunders 1991, 140-1, 153; Allen 2002a, no. 145; Allen 2003, no. 51/E; Allen 2012a, no. 324.

G68. Tutbury, Staffordshire, 1831 (*c.* 1321; 1322?)
English to Edward II class 15b; Irish, Scottish and Continental; *c.*50,000 or more (*c.*200,000?) silver coins + 1 gold ring.
Hawkins 1832; Andrew 1903-4, 47-50; Thompson 1956, no. 363; Dolley 1968, no. 66; Mayhew 1983, no. 113; North 1989, no. 78; Manville 1993a, 103-4; North 1995; Allen 2001a, no. 49; Allen 2002a, no. 146; Allen 2003, no. 299/E; Allen 2012a, no. 325.

G69. Llanddona, Anglesey, 1999-2000 and 2005-6 (*c*. 1321-44)
English to Edward II class 15c; Scottish, Irish and Continental; 311 silver pennies
TAR 1998-9, no. 344; Allen forthcoming, no. 32 [Oriel Ynys Môn, Llangefni, hopes to acquire the hoard]

G70. Amble, Northumberland, 1988 (*c.*1321-1344)
English to Edward II class 15c; Irish, Scottish and Continental; 1,027 silver coins.
Sotheby's, 22-23 March 1990, lots 382-403; Allen 2002a, no. 141; Allen 2003, no. 10/E; Allen 2012a, no. 326.

G71. Bootham (School), York, 1953 (*c.*1321-1344)
English to Edward II class 15c; Irish, Scottish and Continental; 908 silver coins.
Dolley 1953; Dolley and Stewart with Willmot 1952-4; Thompson 1956, no. 385; Dolley 1968, no. 10; Dolley and Seaby 1968, no. C.54; Mayhew 1983, no. 17; North 1989, no. 81; Manville 1995, 175; Cherry 2000, no. 18; Allen 2002a, no. 147; Allen 2003, no. 48/E; Allen 2012a, no. 327.

G72. Grittleton, Wiltshire, in or before 1903 (*c.*1321-1344)
English to Edward II class 15c and Continental; 51 silver coins.
Thompson 1956, no. 178; Dolley 1968, no. 133; Woodhead 1970, 80-3; Mayhew 1983, no. 49; North 1989, no. 43; Allen 2002a, no. 142; Allen 2003, no. 150/E; Allen 2012a, no. 328.

G73. Knaresborough Priory, North Yorkshire, 1805 (*c.*1321-1344)
English to Edward II class 15c; Scottish and Continental; *c.*1,600 silver coins. 1037 listed.
Dolley and Pagan 1963; Dolley 1968, no. 126; Mayhew 1983, no. 69; North 1989, no. 51; Manville 1993a, 100 (no. 225a); Allen 2002a, no. 148; Allen 2003, no. 190/E; Allen 2012a, no. 330.

G74. Neath Abbey I, Glamorgan, Wales, 1956 (*c.*1321-1344)
English to Edward II class 15c; Irish, Scottish and Continental; 100 coins.
Dolley 1955-7b: Boon 1986: 109-19; Allen forthcoming, no. 33.

G75. West Rudham, Norfolk, 1994-5 (*c.*1321-1344)
English to Edward II class 15c; Irish, Scottish and Continental; 393 silver coins.
TTRCAR 1996-7, no. 25; *CH* 1996, no. 135; Allen 2002a, no. 144; Allen 2003, no. 316/E; Allen 2012a, no. 331.

G76. York (Coppergate), 1978 (*c.*1321-1351)
English to Edward II class 15c and Continental; 5 silver coins.
Pirie *et al.* 1986, 61-2, 67; Allen 2002a, no. 143; Allen 2003, no. 85/E; Allen 2012a, no. 332.

G77. Unknown Site, before *c.* 1870 (late 1320s)
English (not described), Scottish and Continental; hoard or parcel of *c.*271 coins.
Bernays 1912, 249-54; Mayhew 1983, no. 114; Allen 2002a, no. 329; Allen 2003, no. 303/E; Allen 2012a, no. 333.

G78. Coventry ('Astleys' or 'Far Gosford Street'), 2006 (1329-44)
English to class 15d1 (London) and Continental; 38 silver coins.
Curteis 2008; Allen 2012a, no. 334.

G79. Nottingham, 1786 (1333-51)
English, including Edward III Berwick class 8b; Irish and Scottish; *c.*100 silver coins.
Dolley and Strudwick 1956, 300; Allen 2002a, no. 152; Allen 2003, no. 246/E; Allen 2012a, no. 335.

G80. Newcastle upon Tyne (River Tyne), *c.*1857 (1344)
English Florin coinage, first period; 2 gold coins.

Evans 1900, 237; Woodhead 1996, no. 2; Allen 2002a, no. 159; Allen 2012a, no. 336.

G81. Braintree, Essex, between 1819 and 1853 (1344-51)

English to Edward III Florin coinage; more than 5,000 silver coins.

Blunt 1976, 227; Allen 2002a, no. 153; Allen 2003, no. 53/E; Allen 2012a, no. 337.

G82. Chester (Pepper Street), Cheshire, in or before 1946 (1344-51)

English to Edward III Florin coinage; Irish, Scottish and Continental; parcel of 100 silver coins.

Dolley, Elmore Jones and Webster 1952-4; Thompson 1956, no. 87; Dolley 1968, no. 16; Dolley and Seaby 1968, no. C.66; Mayhew 1983, no. 24; North 1989, no. 18; Allen 2002a, no. 154; Allen 2003, no. 78/E; Allen 2012a, no. 338.

G83. Ottery St Mary, **Devon**, 1998 (1344-51)

English to Edward III Florin Coinage and Continental; 9 silver pennies + 2 fragments.

TAR 1998-9, no. 347; *CH* 1999, no. 51; Allen 2002a, no. 155; Allen 2012a, no. 339. [Disclaimed; returned to finders]

G84. Oxford (St Clement's), Oxfordshire, 1868 (1344-51)

English to Edward III Florin coinage; Irish, Scottish and Continental; parcel of 225 silver coins.

Evans 1871; Thompson 1956, no. 301; Dolley 1968, no. 51; Dolley and Seaby 1968, no. C.68; Mayhew 1983, no. 91; North 1989, no. 69; Allen 2002a, no. 156; Allen 2003, no. 248/E; Allen 2012a, no. 340.

G85. Portbridge (or Staverton), South Devon, 1999 (1344-51)

English to Edward III Florin coinage and Irish; 37 silver coins.

TAR 1998-9, no. 348; *CH* 2000, no. 51; Allen 2002a, no. 157; Allen 2012a, no. 341. [Disclaimed; returned to finders]

G86. Llysdinam, Powys, Wales, 1996 (c1345-50)

English to Edward II Florin coinage pence and halfpence and Scottish; 105 silver coins.

CH 1998, no. 43; Allen forthcoming, no. 34.[Radnorshire Museum, Llandrindod Wells]

G87. West Wratting, Cambridgeshire, 2007 (1344-51)

English to Edward III Florin coinage and Continental; 13 silver coins.

TAR 2007, no. 551; *CH* 2009, no. 78; Allen 2012a, no. 342. (not including two additional coins acquired with the whole hoard by the Fitzwilliam Museum).

G88. Derby, 1927 (1345-51)

English to Edward III Florin coinage pence and halfpence; Irish, Scottish and Continental; 640 silver coins.

Manton 1927-8; Lawrence 1928; Manton 1928-9; Manton 1929-30; Thompson 1956, no. 118; Dolley 1968, no. 22; Dolley and Seaby 1968, no. C.64; Mayhew 1983, no. 33; North 1989, no. 28; Allen 2002a, no. 160; Allen 2003, no. 98/E; Allen 2012a, no. 343.

G89. London (East Smithfield) I (or 'Tower II'), 1987 (1349-50)

English to Edward III Florin coinage farthings, Scottish and Continental; 181 silver coins.

Cook 2008: 235-40; Grainger *et al* 2008: 15-16; Allen 2012a, no. 344.

G90. London (East Smithfield) I (or 'Tower I'), 1986-8 (1349-50)

English to Edward III Florin coinage penny of York; 8 silver coins.

Cook 2008: 233-5; Grainger *et al* 2008: 15, 17; Allen 2012a, no. 345.

G91. Hull Dock (Kingston upon Hull), 1868 (1344-51?)

English counterfeits or Continental; uncertain no. of billon coins.

Metcalf 1960-1, no. 20; Metcalf 1964; Banks with Metcalf and Hamblin 1968; Manville 1995, 172 (no. 195a); Allen 2002a, no. 158; Allen 2012a, no. 346.

G92. London (Finchley Common), 1755 (1344-1465)

English, including Edward III: at least *c.*26 gold coins.
Metcalf 1958, 83-4; Manville 1993a, 100 (no. 259a); Allen 2002a, no. 218; Allen 2012a, no. 347.

G93. Brecon area, Wales, *c.* 1800 (1279-1351)
English attributed to Edward I; 20 coins.
Lewis's Topographical Dictionary; Boon 1986: 114.

G94. Burgh Marsh, Cumbria, *c.*1860 (1279-1351)
English attributed to Edward I; 'several pounds' weight' of silver coins.
Proceedings of the Society of Antiquaries 2nd ser. 10 (1883-5), 137-8; Allen 2002a, no. 92; Allen 2003, no. 61/E; Allen 2012a, no. 348.

G95. Coed Detton/Stow Hill, (1279-1351?)
English
Thompson 1956, no. 343; Boon 1986: 113.

G96. Faringdon, Oxfordshire, 1816 (1279-1351)
English to Edward I class 1d or later; *c.*100 silver coins.
Manville 1993a, no. 157a; Allen 2002a, no. 93; Allen 2003, no. 132/E; Allen 2012a, no. 349.

G97. Lancaster (Friarage), Lancashire, *c.*1800 (1279-1351)
English attributed to Edward I; uncertain no. of silver coins.
White 1985-6, no. 4; Allen 2002a, no. 94; Allen 2003, no. 193/E; Allen 2012a, no. 350.

G98. Llysfaen, Wales, 1825 (1279-1351)
English attributed to Edward I and II; a great number of silver coins.
Lewis's Topographical Dictionary; Boon 1986: 114; Allen forthcoming, no. 21.

G99. Pencarreg, Carms. (1279-1351)
English attributed to Edward II.
Arch Camb 1846: 468; Thompson 1956, no. 307; Dolley XXXX; Boon 1986: 113; Allen forthcoming, no. 20.

G100. Salisbury (Cathedral Chapter House), 1854 (1279-1351)
English attributed to Edward I; uncertain no. of silver coins.
Burges 1859; Allen 2012a, no. 351.

G101. Croydon, 1998 (after 1344?)
English attributed to Edward I-III; 3 silver coins.
TAR 1997–98, no. 175; *TAR* 1998-9, no. 343; Allen 2002a, no. 163; Allen 2012a, no. 352. [MoLAS excavation: to remain with the archaeological archive]

Period VIII (1351-1412)

H1. Henstridge, Somerset, 1808 (after 1351)
English (Edward III); 15 or 16 gold coins.
Manville 1993a, no. 185b; Woodhead 1996, no. 20; Allen 2002a, no. 166; Allen 2012a, no. 353.

H2. Newcastle upon Tyne (Gunner Tower), 1821 (after 1351)
English, to Edward III Pre-Treaty or later?; uncertain no. of silver coins.
Thompson 1956, no. 281; Dolley 1968, no. 127; Allen 2002a, no. 214; Allen 2003, no. 239/E; Allen 2012a, no. 354.

H3. Swindon (Westlecote), Wiltshire, in or before 1874 (after 1351)
English to Edward III Pre-Treaty; 3 silver coins.
Jefferies 1874, 182; *CH* 4 (1978), no. 362; Allen 2002a, no. 169; Allen 2003, no. 318/E; Allen 2012a, no. 355.

H4. Wainfleet All Saints, Lincolnshire, 1875 (after 1351)
English to Edward III; uncertain no. of silver coins.
White 1978; *CH* 5 (1979), no. 287; Allen 2002a, no. 171; Allen 2003, no. 312/E; Allen 2012a, no. 356.

H5. Llanllawddog, Carmarthen, Wales, 1893 (1351-61?)
English to Edward III; 15 coins.
Jones 1962; Boon 1986: 124.

H6. Ecclesfield, Sheffield, 1770 (after 1351?)
English attributed to Edward III; uncertain no. of silver coins.
Metcalf 1960-1, no. 13; Allen 2002a, no. 165; Allen 2012a, no. 357.

H7. London (Camberwell), in or shortly before 1768 (after 1351?)
English attributed to Edward III; hoard or parcel of 3 silver coins.
Metcalf 1958, 84; Allen 2002a, no. 167; Allen 2003, no. 210/E; Allen 2012a, no. 358.

H8. Ramshaw Moor, Northumberland, 1762 (after 1351?)
English attributed to Edward I, II and III; uncertain no. of silver coins.
Metcalf 1958, 85; Dolley 1968, no. 128; Manville 1993a, 102 (no. 313a); Allen 2002a, no. 96; Allen 2003, no. 262/E; Allen 2012a, no. 359.

H9. Saxtead, **Suffolk**, 1827 (after 1351?)
English attributed to Edward III; *c.*75 silver coins.
Ipswich Journal 15 December 1827, 2; Newman 2002, 7; Allen 2002a, no. 168; Allen 2012a, no. 360.

H10. Urswick, Cumbria, *c.*1800 (after 1351?)
English attributed to Edward III; more than 30 silver coins.
Metcalf 1960-1, no. 51; Dolley 1968, no. 130; Allen 2002a, no. 170; Allen 2003, no. 311/E; Allen 2012a, no. 361.

H11. Rickerby (Stanwix parish), Cumbria, 1986-7 (*c.*1352)
English to Edward III Pre-Treaty series C; Irish, Scottish and Continental; parcel of 2,267 silver coins + 38 silver coin fragments.
Woodhead 1989: 74-6; Richardson and McCarthy 1991; Allen 2001a, no. 50; Allen 2002a, no. 172; Allen 2003, no. 270/E; Allen 2012a, no. 362.

H12. Creslow, Buckinghamshire, 2003 (early/mid-1350s)
English to Edward III Pre-Treaty series D and Scottish; 58 silver coins (not including Henry VI Cross-Pellet penny of London, probably intrusive).
TAR 2003, no. 394; *CH* 2004, no. 20; Allen 2012a, no. 363.

H13. Great Glemham, **Suffolk**, 2000 (*c.*1353-late 14th century?)
English to Edward III Pre-Treaty series E; 4 silver coins.
TAR 2000, no. 278; *CH* 2001, no. 85; Allen 2002a, no. 173; Allen 2012a, no. 364.

H14. Cambridge (Chesterton Lane), Cambridgeshire, 2000 (mid-1350s)
English to Pre-Treaty Series E; 1,814 coins (9 gold + 1,805 silver).
TAR 2000, no. 277; *TAR* 2002, no. 220; *CH* 2002, no. 38; Allen 2002a, no. 174; Allen 2005a; Allen 2005b; Allen 2012a, no. 366. [Fitzwilliam Museum, Cambridge]

H15. Dunton Bassett, Leicestershire, 2005 (mid-1350s)
English to Pre-Treaty Series E; 1 gold + 15 silver coins.
TAR 2005/6, no. 1184; *CH* 2008, no. 67; Allen 2012a, no. 367.

H16. York Minster, 1971 (mid-1350s)
English to Pre-Treaty Series E/F mule; 16 silver coins.
Allen 2002a, no. 175; Allen 2003, no. 327/E; Allen 2012a, no. 368.

H17. Great Totham, Essex, 1875 (1359-*c.* 1360s)
French; parcel of 3 billon coins.
Granger 1894; Thompson 1956, no. 177; Allen 2002a, no. 176; Allen 2012a, no. 369.

H18. Bonvilston, Vale of Glamorgan, Wales, 2007 (*c.* 1351-61?)
English to Edward III series F; 3 silver coins.
PATAR 2007, no. 557; Allen forthcoming, no. 37.

H19. Chester (New Northgate Street), Cheshire, 1901 (*c.*1360)
English to Edward III Pre-Treaty series G; 25 silver coins.
Thompson 1956, no. 88; *CH* 2 (1976), no. 457; Allen 2002a, no. 178; Allen 2012a, no. 370.

H20. Durham (Beach Crest), **Durham**, 1930 (*c.* 1360)
English to Edward III Pre-Treaty series G; Scottish and Continental; 547 silver coins.
Lawrence 1931; Thompson 1956, no. 149; Seaby and Stewart 1964, no. xiii; Mayhew 1983, no. 41; North 1989, no. 39; Allen 2002a, no. 179; Allen 2003, no. 124/E; Allen 2012a, no. 371.

H21. Farndon, Nottinghamshire, 1987 (*c.* 1360)
English to Edward III Pre-Treaty series Gd and Scottish; 21 silver coins.
Allen 2002a, no. 180; Allen 2003, no. 133/E; Allen 2012a, no. 372.

H22. Mareham le Fen, Lincolnshire, 1961 (*c.* 1360)
English to Edward III Pre-Treaty series Gb and Scottish; 34 silver coins.
Dolley 1964a, 83-6; Seaby and Stewart 1964, no. xvii; Allen 2002a, no. 181; Allen 2012a, no. 373.

H23. Rogate area, West Sussex, 2002 and 2004 (*c.* 1360)
English to Edward III Pre-Treaty series G and Irish; 23 silver coins.
TAR 2002, no. 222; *CH* 2004, no. 22; *TAR* 2004, no. 464; *CH* 2007, no. 66; Allen 2012a, no. 374. [Chichester District Museum]

H24. Sandsfield, Cumbria, *c.*1845 (*c.* 1360?)
English to Edward III Pre-Treaty series G; parcel of 9 silver coins.
Ferguson and Keary 1885, 207; Ferguson 1885-6, 380-1; Thompson 1956, no. 321; Dolley 1964a, 85-7; Allen 2002a, no. 182; Allen 2003, no. 280/E; Allen 2012a, no. 375.

H25. Abbotsbury, Dorset, in or shortly before 1748 (1361-late 14th century?)
English (Edward III Treaty B) and Anglo-Gallic; parcel of 2 gold coins.
Metcalf 1958, 75-6; Allen 2002a, no. 184; Allen 2012a, no. 376.

H26. March, Cambridgeshire, 1994 (1361-late 14th century?)
English (Edward III Treaty B); 2 gold coins.
Doolan 1995; Woodhead 1996, no. 12; Allen 2002a, no. 183; Allen 2012a, no. 377.

H27. Norwich (Ber Street), Norfolk, 1854 (1361-late 14th century?)
English to Edward III Treaty or Post-Treaty; hoard or parcel of 5 gold coins.
Thompson 1956, no. 292; Woodhead 1996, no. 13; Allen 2002a, no. 185; Allen 2012a, no. 378.

H28. Beaumont, Cumbria, 1884 (and 1991?) (early 1360s)
English to Edward III Treaty A; Irish, Scottish and Continental; *c.*2,400 silver coins.
Ferguson and Keary 1885; Ferguson 1885-6; Smith 1886; Thompson 1956, no. 38; Thompson 1959, 280; Dolley 1964a, 85-9; Seaby and Stewart 1964, no. xiv; Dolley 1968, no. 6; Dolley and Seaby 1968, no. C70; Mayhew 1983, no. 14; North 1989, no. 8; *BNJ* 61 (1991), 167; Cherry 2000, no. 2; Allen 2002a, no. 186; Allen 2003, no. 37/E; Allen 2012a, no. 379.

H29. Beulah Hill, **London**, 1953 (1360s)
English to Edward III Treaty B and Scottish; 138 coins (14 gold + 124 silver).
Dolley 1953; Thompson 1956, no. 241; Seaby and Stewart 1964, no. xvi; Woodhead 1996, no. 8; Allen 2002a, no. 187; Allen 2003, no. 41/E; Allen 2012a, no. 380.

H30. Coventry (Foleshill), 1967 (1360s)
English to Edward III Treaty B; Irish, Scottish and Continental; 225 silver coins.
Archibald 1973; *CH* 3 (1977), no. 332; Mayhew 1983, no. 29; North 1989, no. 26; Allen 2002a, no. 188; Allen 2003, no. 91/E; Allen 2012a, no. 381.

H31. Kirkby Stephen, Cumbria, 2007 (1360s)
English to Edward III Treaty B; 12 silver coins.
PATAR 2007, no. 558; *CH* 2009, no. 79; Allen 2012a, no. 383.

H32. Calder Abbey, Cumbria, 1905 (1360s?)
English to Edward III Treaty B; 6 gold coins.
Parker 1914; Thompson 1956, no. 67; Woodhead 1996, no. 10; Allen 2002a, no. 177; Allen 2012a, no. 387.

H33. Myddle and Broughton, Shropshire, 2005 and 2007 (1360s?)
Spanish (*doblas* of Pedro I of Castile); 9 gold coins.
TAR 2005/6, no. 1186; *PATAR* 2007, no. 559; *CH* 2008, no. 69; *CH* 2009, no. 80; Allen 2012a, no. 388.

H34. Driffield area, East Yorkshire, 2001 (*c.* 1360s-1412?)
English to Edward III Pre-Treaty Gb; 5 silver groats.
TAR 2001, no. 206; *CH* 2002, no. 39; Barclay 2002; Allen 2002a, no. 213; Allen 2012a, no. 389. [Disclaimed; returned to finder]

H35. Abridge area, Essex, 2002 and 2004 (1370s)
English to Edward III Post-Treaty; 9 gold coins.
TAR 2002, no. 223; *CH* 2003, no. 32; *TAR* 2004, no. 465; *CH* 2007, no. 67; Allen 2012a, no. 392. [Epping Forest Museum]

H36. Durham (Nevilles Cross), **Durham**, 1889 (1370s)
English to Edward III (Post Treaty?); Scottish and Continental; *c.*300 silver coins.
Evans 1889; Thompson 1956, no. 148; Seaby and Stewart 1964, no. xix; Mayhew 1983, no. 40; North 1989, no. 38; Cherry 2000, no. 8; Allen 2002a, no. 194; Allen 2003, no. 123/E; Allen 2012a, no. 394 [Jug in BM MLA B61]

H37. East Raynham (or Fakenham), Norfolk, 1910 (1370s)
English to Edward III Post Treaty; 200 gold coins.
Brooke 1911; Whitton 1936-7; Thompson 1956, nos 151, 157; Woodhead 1996, no. 17; Allen 2002a, no. 19; Allen 2012a, no. 395.

H40. Grantham, Lincolnshire, 1994 (1370s)
English to Edward III post-Treaty; Irish, Scottish and Continental; 462 silver coins.

TTRCAR 1996-7, no. 26; *CH* 1996, no. 136; Allen 2002a, no. 195; Allen 2003, no. 147/E; Allen 2012a, no. 396.

H41. Sutton on Sea, Lincolnshire, 1990 (1370s/1380s)
English to Edward III Post-Treaty; 21 silver coins.
Allen 2002a, no. 189; Allen 2003, no. 290/E; Allen 2012a, no. 397.

H42. Eynsford, **Kent,** 1993 (1370s/1380s?)
English to Edward III Post-Treaty; 8 silver coins.
Allen 2002a, no. 192; Allen 2003, no. 131/E; Allen 2012a, no. 398.

H43. Winford, North Somerset, 19th century (1370s/1380s?)
English to Edward III Post-Treaty; 12 silver coins.
Du Quesne-Bird 1971, 140; *CH* 2 (1976), no. 458; Allen 2002a, no. 190; Allen 2003, no. 322/E; Allen 2012a, no. 399.

H44. Monknash, Vale of Glamorgan, Wales, 2002 (1368- late 14th century?)
English to Edward III class Gc; Spanish; 5 coins.
TAR 2002, no. 224; Allen forthcoming, no. 39. [National Museums & Galleries of Wales]

H42. Pinchbeck, Lincolnshire, 1985-7 (1380s/1390s)
English to Richard II; 99 gold coins.
Cook 1991; Woodhead 1996, no. 99; Allen 2002a, no. 203; Allen 2012a, no. 400.

H43. Elvet Moor (or Burn Hall), **Durham**, 1756 (*c.* 1380s)
English attributed to Edward III and Scottish; 170 silver coins.
Murray 1978, 73-7; *CH* 6 (1981), no. 382; Manville 1993a, 95 (no. 60a); Allen 2002a, no. 201; Allen 2012a, no. 401.

H44. Fenwick, Northumberland, 1775 (*c.* 1380s)
English, including Edward III; more than 224 gold coins.
Brereton 1778; Thompson 1956, no. 159; Metcalf 1960-1, 122; Dolley 1964c, 90-1; Manville 1993a, 97; Woodhead 1996, no. 36; Cherry 2000, no. 9; Allen 2002a, no. 202; Allen 2012a, no. 402.

H45. South Shields, South Tyneside, between *c.*1880 and 1893 (*c.* 1380s)
English to Edward III Treaty B and Scottish; hoard or parcels of 29 silver coins, possibly including intrusive single-finds.
Metcalf 1960-1, 100, 116-17 (no. 48); Allen 2002a, no. 204; Allen 2012a, no. 403.

H46. Balcombe, West Sussex, 1897 (1380s/1390s)
English to Richard II; Scottish and Continental; 754 coins (12 gold + 742 silver).
Grueber and Lawrence 1898; Cooper 1899; Thompson 1956, no. 22; Seaby and Stewart 1964, no. xxiii; Mayhew 1983, no. 10; North 1989, no. 7; Woodhead 1996, no. 27; Cherry 2000, no. 1; Allen 2002a, no. 198; Allen 2003, no. 24/E; Allen 2012a, no. 404.

H47. Bredgar, **Kent**, 1940 (1380s/1390s)
English to Richard II; 131 gold coins.
Allen and Whitton 1947; Thompson 1956, no. 57; *CH* 6 (1981), no. 381; Woodhead 1996, no. 28; Allen 2002a, no. 199; Allen 2012a, no. 405.

H48. Brinkburn Priory, Northumberland, 1834 (1380s/1390s)
English to Richard II; *c.*300-400 gold coins.
GM 3 (1834): 636; Dolley 1964c; Manville 1993a, 94 (no. 57a); Woodhead 1996, no. 34; Cherry 2000, no. 5; Allen 2002a, no. 200; Allen 2012a, no. 406.

H49. Canon Pyon, Herefordshire, 1997 (1380s/1390s)

English to Richard II and Scottish; 86 silver coins.

TAR 1997-8, no. 147; *CH* 1999, no. 53; Stevenson 1999; Allen 2002a, no. 196; Allen 2012a, no. 407.

H50. Mountain Ash, Glamorgan, Wales, before 1910 (*c.* 1400?)

English to Richard II; 3 gold coins.

Boon 1986: 120-4; Allen forthcoming, no. 41.

H51. Westminster (River Thames), 1841 (1380s/1390s)

Roach Smith bought the coins together with the remains of the brass casket which contained the hoard.

Cuff 1842-3; Thompson 1956, no. 259; Woodhead 1996, no. 30; Cherry 2000, no. 15; Allen 2002a, no. 205; Allen 2012a, no. 409.

H52. Bristol (Lawrence Weston), 1987 (*c.*1380s-1412)

English to Richard II and other unspecified coins; 234 coins (6 gold + 228 silver).

Rawes 1988, 219; Allen 2002a, no. 208; Allen 2003, no. 57/E; Allen 2012a, no. 410.

H53. Hill Deverill, Wiltshire, 1993 (*c.*1380s-1412)

English to Richard II; 61 coins (5 gold + 56 silver).

TTRCAR 1996-7, no. 27; *CH* 1996, no. 137; Allen 2002a, no. 209; Allen 2003, no. 158/E; Allen 2012a, no. 411.

H54. Mansfield, Nottinghamshire, 2002 (*c.*1380s-1412)

English to Richard II; 42 coins. 7 gold and 35 silver coins of Edward III (1327–77) and Richard II (1377–99), face value £2 16s.11d.

TAR 2002, no. 225; Allen 2002a, no. 210; *The Searcher* (March 2002): 45–6; *Treasure Hunting* (March, 2002): 6–10; *CH* 2003, no. 33; *CH* 2004, no. 21; Allen 2012a, no. 412. [Disclaimed; returned to finders]

H55. Meopham, **Kent**, 1973-6 (*c.*1380s-1412)

English to Richard II; 14 gold coins.

CH 1 (1975), no. 375; Archibald and Connolly 1977; Woodhead 1996, no. 37; Allen 2002a, no. 211; Allen 2012a, no. 413.

H56. Nottingham (Long-Row), 1782 (*c.*1380s-1412)

English to Richard II; *c.*20 gold coins.

Dolley and Strudwick 1956, 300-2; Allen 2002a, no. 206; Allen 2012a, no. 414.

H57. Westminster Abbey, 1863 (*c.*1380s-1412)

English to Richard II; parcel of 11 gold coins.

Arnold 1863; *NC* new ser. 4 (1864), 157; Thompson 1956, nos 257-8; Woodhead 1996, no. 29; Allen 2002a, no. 197; Allen 2012a, no. 415.

H58. Romney Marsh, **Kent**, 1999 (*c.*1380s-1412?)

English (Richard II); 3 silver coins.

TAR 1998-9, no. 351; *CH* 2001, no. 86; Allen 2002a, no. 215; Allen 2012a, no. 417. [Disclaimed; returned to finder]

H59. Westbury, Wiltshire, 1877 (1388-1412)

English to Richard II and Flemish; 32 gold coins.

Baron 1883; Thompson 1956, no. 375; Woodhead 1996, no. 31; Allen 2002a, no. 207; Allen 2012a, no. 418.

H60. Neuaddfach, Llangynllo, Radnorshire, 1804 (*c.* 1400)

English to Henry IV; 80-90 gold coins.

RCAHM Radnorshire Inventory 1913, no. 391; *Arch Camb* 1858: 584; *Hist. Radnorshire* 1859: 276; Thompson 1956, no. 238; Boon 1986: 123; Cherry 2000, no. 14; Allen forthcoming, no. 40.

H61. Skipton Bridge, North Yorkshire, 1949 and 1997 (1400-1412)

English to Henry IV heavy coinage; Irish, Scottish and Continental; 457 silver coins (383 in 1949 + 74 in 1997).
Jenkins 1949; Thompson 1956, no. 331; Dolley 1968, no. 61; Dolley and Seaby 1968, no. C.73; Mayhew 1983, no. 102; North 1989, no. 74; *TAR* 1997-8, no. 148; *CH* 1999, no. 54; Barclay 2001, 168-70; Allen 2002a, no. 212; Allen 2003, no. 286/E; Allen 2012a, no. 421.

Period VIII-IX (1351-1464)

HJ1. Unknown Site (1), in or before 1999 (1390-15th century)
Spanish (Castile); 3 silver coins.
Cook 1999b, 262-3, 277; Allen 2002a, no. 219; Allen 2012a, no. 419.

HJ2. Lamarsh, Essex, 1542 (1399-1465)
English (Henry IV, V or VI); at least 75 gold coins.
Alston 2002; Allen 2002a, no. 216; Allen 2012a, no. 420.

HJ3. South Walsham, Norfolk, 2001 (1400-*c.*1420)
Venetian; 3 silver soldini.
TAR 2001, no. 208; *CH* 2002, no. 41; Allen 2002a, no. 217; Allen 2012a, no. 422.

Period IX (1412-64)

J1. Meonstoke, Hampshire, 1441 (1412-41)
English, Edward III or later; at least 60 gold coins.
Beard 1933, 279-80; Allen 2002a, no. 221; Allen 2012a, no. 423.

J2. Bolton (Cockey Moor), Lancashire, 1822 (1412-64)
English attributed to Henry V; *c.*60 gold and silver coins.
Williams 1976; *CH* 3 (1977), no. 334; Woodhead 1996, no. 51; Allen 2002a, no. 252; Allen 2012a, no. 424.

J3. Lake, Wiltshire, 1767 (1412-64)
English to Henry V or Henry VI; 67 silver coins.
Thompson 1956, no. 228; *CH* 3 (1977), no. 335; Allen 2002a, no. 220; Allen 2003, no. 192/E; Allen 2012a, no. 425.

J4. Highbury, London, 1868 (*c.*1415-20)
English and Venetian; *c.*7,000 silver coins.
NC^2 8 (1868), Proceedings, 4; Neck 1871, 97, 109-10, 116-17, 124-5; Thompson 1956, no. 245; Spufford 1963, 132-3; Stahl 2000, 460 (no. 122); Allen 2002a, no. 223; Allen 2003, no. 157/E; Allen 2012a, no. 426.

J5. Caerleon, Newport, Wales, 2002 (1412-20?)
English to Richard II; Irish and Scottish: 40 coins.
TAR 2002, no. 227; Allen forthcoming, no. 47. [Newport Museum and Art Gallery]

J6. Attenborough, Nottinghamshire, 1966 (*c.*1420)
English to Henry V class F; Irish, Scottish and Continental; 1,107 or 1,108 silver coins.
Archibald with MacCormick 1969; Mayhew 1983, no. 6; North 1989, no. 4; Allen 2002a, no. 226; Allen 2003, no. 17/E; Allen 2012a, no. 427.

J7. Brentwood, Essex, 1968 (*c.*1420)
English to Henry V class F; Scottish and Continental; 308 silver coins.
Allen 2002a, no. 222; Allen 2003, no. 56/E; Allen 2012a, no. 428.

J8. Headington, Oxfordshire, 1958 (*c.* 1420s)
Burgundian; 3 silver coins.

Spufford 1963, 138; Allen 2002a, no. 225; Allen 2012a, no. 429.

J9. Clitheroe area, Lancashire, 2006 (mid-1420s-c1430)

English to Henry VI Annulet issue; 30 silver coins.

TAR 2005/6, no. 1189; *CH* 2008, no. 71; Allen 2012a, no. 430.

J10. Terrington St Clement, Norfolk, 1940 (1422-*c.*1430s)

English to Henry VI Annulet issue and Continental; 189 silver coins + 7 fragments.

Carson with Dunning 1947; Thompson 1956, no. 353; Mayhew 1983, no. 108; North 1989, no. 76; Allen 2002a, no. 231; Allen 2003, no. 292/E; Allen 2012a, no. 432.

J11. Basingstoke, Hampshire, 1984 (1422-64)

English to Henry VI Annulet issue; 8 silver coins.

Allen 2002a, no. 229; Allen 2012a, no. 433.

J12. Buslingthorpe (or Market Rasen), Lincolnshire, 2001 (1422-64)

English, including Henry VI Annulet issue; *c.* 8 silver coins.

TAR 2001, no. 209; *CH* 2002, no. 40; Barclay 2002; Allen 2002a, no. 253; Allen 2012a, no. 435. [Disclaimed; returned to finder]

J13. Bardsey Island, Gwynedd, Wales, *c.* 1872-5 (1422-65)

English to Henry VI; uncertain number of gold coins.

Boon 1986: 120-4.

J14. Barmouth, Gwynedd, Wales, 1906 (1422-65)

English to Henry VI; about 20 gold coins.

Boon 1986: 120-4; Allen forthcoming, no. 49.

J15. Biggleswade (Stratton), Bedfordshire, 1770 (1422-65)

English, including Henry VI; *c.*300 gold coins.

Metcalf 1957, 198-9; Heslip 1977; *CH* 4 (1978), no. 371; *CH* 5 (1979), no. 289; Manville 1993a, 94 (no. 42b); Woodhead 1996, no. 58; Cherry 2000, no. 4; Allen 2002a, no. 227; Allen 2012a, no. 436.

J16. Borth, Cardigan, Wales, 1930 (1422-65)

English to Henry VI; 31 gold coins.

Brooke 1931a: 89-90; Brooke 1931b: 75-80; Brooke 1931c: 53-61; Boon 1986: 120-4; Allen forthcoming, no. 51.

J17. Bracknell, 1998 (1422-65)

English to Henry VI Annulet issue; 2 gold coins.

TAR 1998-9, no. 352; *CH* 1999, no. 55; Allen 2002a, no. 224; Allen 2012a, no. 437. [Disclaimed; returned to finder]

J18. Between Tywyn and Aberdyfi, 1825 (1422-65)

English to Henry VI; 220 silver and a few gold coins.

Shrewsbury Chronicle Nov. 25; D. Silvan Evans 1868; Boon 1986: 120-4; Allen forthcoming, no. 50.

J19. Winwick, Cambridgeshire, 1990 (1422-65)

English to Henry VI Annulet issue; 5 gold coins.

Allen 2002a, no. 228; Allen 2012a, no. 438.

J20. London (St Bartholomew's Hospital), 1736 (1422-1544)

English, including Henry VI; *c.*60 or 70 silver coins.

Metcalf 1958, 83; Manville 1995, 169 (no. 259b); Allen 2002a, no. 254; Allen 2012a, no. 439.

J21. Hexham, Northumberland, 1992 (1423-early 1430s)

English to Henry VI Annulet issue (York); 27 gold coins.

Allen 2002a, no. 230; Allen 2012a, no. 440.

J22. Bradenham, Norfolk, 2004 (*c.*1430-1464)

English to Henry VI Rosette-Mascle issue; 3 silver coins.

TAR 2004, no. 467; *CH* 2007, no. 68; Allen 2012a, no. 441.

J23. Carthorpe near Bedale, North Yorkshire, 2000 (*c.*1430-1464)

English to Henry VI Rosette-Mascle issue; 3 silver coins.

TAR 2000, no. 280; *CH* 2001, no. 88; Allen 2002a, no. 239; Allen 2012a, no. 442. [Dales Countryside Museum, Hawes]

J24. Skipton, North Yorkshire, 2006 (c1430-1464)

English to Henry VI Rosette-Mascle issue; 7 silver coins.

TAR 2005/6, no. 1191; *CH* 2008, no. 72; Allen 2012a, no. 443.

J25. Halsall, Lancashire, 1923 (*c.*1430-1465)

English to Henry VI Rosette-Mascle issue; hoard or 2 parcels of 20 gold coins in all.

Brooke 1927a; Thompson 1956, no. 180; Woodhead 1996, no. 66; Allen 2002a, no. 235; Allen 2012a, no. 444.

J26. Wrekenton, Gateshead, 1954 (*c.*1430-1465)

English to Henry VI Rosette-Mascle issue; 2 gold coins.

Corbitt 1955-7; Woodhead 1996, no. 65; Allen 2002a, no. 232; Allen 2012a, no. 445.

J27. Ilam, Staffordshire, 2004 (early 1430s)

English to Henry VI Rosette Mascle issue; Irish and Continental; 77 silver coins.

TAR 2004, no. 468; *CH* 2007, no. 69; Allen 2012a, no. 446.

J28. Arreton Down, Isle of Wight, 1998 (1430s)

English to Henry VI Rosette-Mascle issue; 10 groats and 8 half-groats (face value: 4s.8d)

TAR 1998-9, no. 353; *CH* 1999, no. 56; Allen 2002a, no. 233; Allen 2012a, no. 447. [Isle of Wight Museums Service]

J29. Blencogo, Cumbria, 1983-4 (1430s)

English to Henry VI Pinecone-Mascle issue; 14 silver coins

BNJ 54 (1984), 304; Allen 2002a, no. 234; Allen 2003, no. 46/E; Allen 2012a, no. 448.

J30. Fauld, Staffs., 2000 (early 1430s)

English to Henry VI rosette-mascle: 114 silver groats.

TAR 2000, no. 279 [Potteries Museum and Art Gallery, Stoke-on-Trent]

J31. Hampshire, 1905 (early/mid-1430s)

English to Henry VI Pinecone-Mascle issue and Continental; *c.*250-300(?) silver coins.

Walters 1908; Thompson 1956, no. 183; Mayhew 1983, no. 52; Allen 2002a, no. 236; Allen 2003, no. 153/E; Allen 2012a, no. 449.

J32. Huntington, Cheshire, 1986 (early/mid-1430s)

English to Henry VI Pinecone-Mascle issue; 42 coins (1 gold + 41 silver) + 1 silver ring.

'The Huntington hoard', *NCirc* 94 (1986), 263; Woodhead 1996, no. 67; Allen 2002a, no. 237; Allen 2003, no. 163/E; Allen 2012a, no. 450.

J33. Horsted Keynes, West Sussex, 1929 (early/mid-1430s)

English to Henry VI Pinecone-Mascle issue and Flemish; 64 gold coins.

Brooke 1929; Thompson 1956, no. 194; Woodhead 1996, no. 59; Cherry 2000, no. 12; Allen 2002a, no. 243; Allen 2012a, no. 451.

J34. London, in or before 1906 (early/mid-1430s)

English to Henry VI Pinecone-Mascle issue; *c.*200 silver coins.

Walters 1907; Thompson 1956, no. 242; Allen 2002a, no. 241; Allen 2012a, no. 452.

J35. Pulham, Dorset, 1983 (early/mid-1430s)

English to Henry VI Pinecone-Mascle issue; 100 gold coins.

Christie's, 28 May 1985 (catalogue introduction by M. M. Archibald); Woodhead 1996, no. 67a; Allen 2002a, no. 238; Allen 2012a, no. 453.

J36. Hooe, **East Sussex**, 1991 (early 1430s-1464)

English to Henry VI Pinecone-Mascle issue and Italian; 8 silver coins.

Cook 1994, 83; Allen 2002a, no. 240; Allen 2012a, no. 454.

J37. Hurstbourne Tarrant, Hampshire, 1985 (late 1430s-1464)

English to Henry VI Leaf-Trefoil issue and Scottish; 11 silver coins.

Allen 2002a, no. 242; Allen 2003, no, 164/E; Allen 2012a, no. 455.

J38. Stoke Holy Cross, Norfolk, 2004 (*c.*1445-1464)

English to Henry VI Leaf-Pellet issue; 5 coins (3 gold + 2 silver) + 2 gold rings.

TAR 2004, no. 20; Allen 2012a, no. 456.

J39. Thame, Oxfordshire, 1940 (*c.*1445-1464)

English to Henry VI Leaf-Pellet issue; 10 silver coins + 5 gold rings.

Leeds 1940; Evans and Thompson 1941; Allen 2002a, no. 244; Allen 2012a, no. 457.

J40. Holwell, Leicestershire, 1864 (*c.*1450)

English to Henry VI Leaf-Pellet issue; Irish, Scottish and Continental; *c.*900 silver coins.

Pownall 1865-6; Pownall 1867; Thompson 1956, no. 192; Thompson 1959, 281; Archibald 1979; Allen 2002a, no. 245; Allen 2003, no. 160/E; Allen 2012a, no. 458.

J41. Reigate (Wray Lane), Surrey, 1972 (*c.*1455)

English to Henry VI Leaf-Pellet issue; Scottish and Continental; 987 (3 gold + 984 silver).

CH 1 (1975), no. 376; *CH* 4 (1978), no. 370; Archibald with Cherry 1978; *CH* 6 (1981), no. 385; Mayhew 1983, no. 98; Woodhead 1996, no. 70; Allen 2002a, no. 246; Allen 2003, no. 266/E; Allen 2012a, no. 459.

J42. Reigate (Brokes Road), Surrey, 1990 (*c.*1455)

English to Henry VI Cross-Pellet issue; Irish, Scottish and Continental; 6,703 coins (136 gold + 6,567 silver) + 2 silver coin fragments.

Glendining's, 8 December 1992 (D. Turner, 'Background to the Reigate hoards', pp. 6-7; B.J. Cook, 'The Reigate (Brokes Road) treasure trove', p. 8); Williams with Orton 1996; Woodhead 1996, no. 71; Cook 2001, 302, 306-7; Allen 2002a, no. 247; Allen 2003, no. 267/E; Allen 2012a, no. 460.

J43. Reculver, **Kent**, 1926 (*c.*1455-1464)

English to Henry VI Cross-Pellet issue; *c.*70 silver coins + 1 silver coin fragment.

Thompson 1956, no. 316; Allen 2002a, no. 248; Allen 2003, no. 263/E; Allen 2012a, no. 461.

J44. Ipswich, **Suffolk**, in or shortly before 1965 (*c.*1455-1464)

English to Henry VI Cross-Pellet issue; hoard or parcel of 35 silver coins.
Seaby 1966; Allen 2002a, no. 249; Allen 2003, no. 172/E; Allen 2012a, no. 462.

J45. Diss, Norfolk, 1871 (*c.*1464)
English to Edward IV heavy coinage type IV; 325 coins (2 gold + 323 silver).
Manning 1865-71; Norfolk Arch 7 (1872): 341ff; Thompson 1956, no. 120; Woodhead 1996, no. 73; Cherry 2000, no. 7; Allen 2002a, no. 250; Allen 2003, no. 102/E; Allen 2012a, no. 465.

J46. Fishpool, Nottinghamshire, 1966 (*c.*1464)
English to Edward IV heavy coinage; Anglo-Gallic, Scottish, French and Burgundian; *c.*1,287 or more gold coins + 4 gold rings + 1 gold brooch + 1 gold miniature padlock + 2 gold and jewelled pendants + 1 gold chain in 2 pieces.
Archibald with Cherry 1967; Woodhead 1996, no. 72; Cook 2001, 302, 306-7; Allen 2002a, no. 251; Allen 2012a, no. 466.

Period IX-X (1412-1544)

JK1. Grafton Regis, Northamptonshire, 1964 (1461-1544)
English (only?) attributed to Edward IV; 8 silver coins.
Wilson and Hurst 1965: 203; Allen 2012a, no. 463.

JK2. Stamford (St Leonard's Priory), Lincolnshire, 1969 (1461-1544)
English, 'mostly' of Edward IV; silver coin clippings.
Mahany 1977, 21-2; *CH* 4 (1978), no. 372; Allen 2002a, no. 335; Allen 2012a, no. 464.

Period X (1464-1544)

K1. Pucklechurch, Gloucestershire, 2005 (1464-1544)
English to Edward IV first reign light coinage; 3 silver coins + jetton + purse bar.
TAR 2005/6, no. 1194; *CH* 2008, no. 76; Allen 2012a, no. 467.

K2. Brackley area, Northamptonshire, 2005 (*c.* 1465)
English to Edward IV first reign light coinage type V and Scottish; 324 silver coins.
TAR 2005/6, no. 1192; *CH* 2008, no. 74; Allen 2012a, no. 468.

K3. Stamford (St George's Church), Lincolnshire, 1866 (*c.* 1465-6)
English to Edward IV first reign light coinage type VI; more than 3,000 silver coins.
Deposited in a 'coarse brown clay pot'.
Neck 1871, 97; Walters 1911; Thompson 1956, no. 340; Cherry 2000, no. 16; Allen 2002a, no. 260; Allen 2012a, no. 469.

K4. Swindon area, Wiltshire, 2006-7 (c1465-66)
English to Edward IV first reign light coinage type VI; 56 silver coins.
TAR 2005/6, no. 1193; *PATAR* 2007, no. 561; *CH* 2008, no. 75; *CH* 2009, no. 82; Allen 2012a, no. 470.

K5. Brinsea (or Brinzey, Congresbury parish), North Somerset, 1828 (1465-*c.*1470)
English to Edward IV first reign light coinage; 138 coins (23 gold + 115 silver).
GM 1828: 462; Thompson 1956, no. 97; Manville 1993a, 96; Woodhead 1996, no. 75; Cherry 2000, no. 6; Allen 2002a, no. 259; Allen 2012a, no. 471.

K6. Buckland Monachorum, **Devon**, 2000 (1465-1544)
English (Edward IV first reign light coinage); 2 gold coins.
TAR 2000, no. 281; *CH* 2001, no. 89; Allen 2002a, no. 255; Allen 2012a, no. 472. [Plymouth City Museum and Art Gallery]

K7. Hornsea, East Yorkshire, 1964 (1465-1544)
English (Edward IV first reign light coinage); hoard or parcel of 2 gold coins.
Transactions of the Yorkshire Numismatic Society 2nd ser. 2 (2) (1966), 63; Manville 1995, 172 (no. 193b); Allen 2002a, no. 256; Allen 2012a, no. 473.

K8. Woodchester, Gloucestershire, 1687 (1465-1544)
English attributed to Edward IV; uncertain no. of gold coins.
Metcalf 1957, 199; Allen 2002a, no. 258; Allen 2012a, no. 474.

K9. Unknown Site, in or before 1899 (1465-1544)
English (Edward IV first reign light coinage); hoard or parcel of 35 gold coins.
'A find of Edward IV Rose Nobles', *NCirc* 7 (1899), cols 3161-2; Thompson 1956, no. 370; Allen 2002a, no. 330; Allen 2012a, no. 475.

K10. Woburn, Bedfordshire, 1770 (1465-1733)
English; *c.* 100 gold coins.
Farquhar 1916, 115 n. 2; Brown and Dolley 1971, no. EP119; Woodhead 1996, no. 89; Allen 2002a, no. 257; Allen 2012a, no. 476.

K11. Wyre Piddle, Worcestershire, 1967 (*c.*1466-7)
English to Edward IV first reign light coinage type VII; Scottish and Continental; 219 silver coins.
Archibald 1970; Allen 2002a, no. 262; Allen 2003, no. 325/E; Allen 2012a, no. 477.

K12. Keymer area, West Sussex, 2006 (c1466-1544)
English to Edward IV first reign light coinage type VII; 2 silver coins.
TAR 2005/6, no. 1195; *CH* 2008, no. 77; Allen 2012a, no. 478.

K13. Wokingham, 1877 (*c.* 1466-1544)
English (Edward IV first reign light coinage, including type VII or VIIIa); uncertain no. of gold coins.
NCirc November 1945, col. 354, no. 34152; Thompson 1956, no. 379; Woodhead 1996, no. 78; Allen 2002a, no. 261; Allen 2012a, no. 479.

K14. Peldon, Essex, *c.* 1968 (*c.*1467-late 15th century?)
English to Edward IV first reign light coinage type VII/VIII mule; 14 silver coins.
Rodwell and Archibald 1977; Allen 2002a, no. 266; Allen 2003, no. 252/E; Allen 2012a, no. 480.

K15. Aylesbury, Buckinghamshire, 1952 (late 1460s-1544)
English (Edward IV first reign light coinage to type IX); 4 gold coins.
Dolley 1952; Thompson 1956, no. 17; Woodhead 1996, no. 74; Allen 2002a, no. 263; Allen 2012a, no. 481.

K16. Hitcham, Suffolk, 2007 (late 1460s-1544)
Burgundian; 2 silver coins.
PATAR 2007, no. 562; *CH* 2009, no. 84; Allen 2012a, no. 482.

K17. Holbrook, **Suffolk**, 1940s (1471-late 15th century/)
English, including Edward IV second reign; uncertain no. of gold and silver coins + 4 silver rings + 3 silver brooches + 1 silver chain.
Newman 1994; *CH* 1995, no. 20; Allen 2002a, no. 267; Allen 2012a, no. 483.

K18. Tredington, Warwickshire, *c.*1900 or *c.*1914-*c.*1930 (1471-late 15th century?)
English to Edward IV second reign; *c.*40 silver coins (+ uncertain no. of gold coins?).
Thompson 1959, 281-2; Manville 1993a, 91 (nos 361a and 361b) ; Allen 2002a, no. 268; Allen 2003, no. 298/E; Allen 2012a, no. 484.

K19. Nuneaton, Warwickshire, 1889 (1470s-late 15th century?)
English to Edward IV first reign light coinage or later; Irish and Scottish; *c.*400 silver coins.
Thompson 1956, no. 296; North 1989, no. 68; Allen 2001a, no. 51; Allen 2002a, no. 264; Allen 2003, no. 247/E; Allen 2012a, no. 485.

K20. Guisborough, Redcar and Cleveland, *c.*1848 (1473-*c.*1480)
English to Edward IV second reign Durham pence of Bishop Booth, local dies, and Irish; hoard or parcel of 226 silver coins.
Lawrence 1896; Thompson 1956, no. 179; Allen 2002a, no. 265; Allen 2003, no. 151/E; Allen 2012a, no. 486.

K21. Streatley, West Berkshire, 1980 (1473-*c.*1480)
English to Edward IV second reign Durham pence of Bishop Booth, local dies; 47 silver coins.
Allen 2002a, no. 270; Allen 2003, no. 289/E; Allen 2012a, no. 487.

K22. Taunton, Somerset, 1981 (1475-early 16th century)
French; parcel of 39 copper alloy counterfeits + copper alloy scrap.
Minnitt 1993; Allen 2002a, no. 269; Allen 2012a, no. 488.

K23. Evesham, Worcestershire, 1998 (*c.*1475-1544)
English to Edward IV second reign type XXI and Burgundian; 3 silver coins.
TAR 1997-8, no. 149; *CH* 1999, no. 57; Allen 2002a, no. 271; Allen 2012a, no. 490.

K24. Letcombe Regis, Oxfordshire, 2006 (1476-1544)
English to Edward IV second reign Durham pence of Bishop William Dudley; 5 silver coins.
TAR 2005/6, no. 1197; *CH* 2008, no. 78; Allen 2012a, no. 491.

K25. Bootham (The Gables), York, 1896 (early 1480s)
English to Edward IV second reign York pence of Archbishop Thomas Rotherham and Irish; hoard or parcel of 432 silver coins.
'A find of Edward IV & other coins chiefly of Durham & York', *NCirc* 8 (1900), cols 3857-8; Sotheby, Wilkinson & Hodge, 1 May 1919, lots 231-5; Thompson 1956, nos 371, 384; Allen 2002a, nos 272, 331; Allen 2003, nos 47/E, 304/E; Allen 2012a, no. 492.

K26. Attleborough, Norfolk, 1866 (1483-1544)
English to Richard III; 7 gold coins.
Thompson 1956, no. 15; Allen 2002a, no. 273; Allen 2012a, no. 493.

K27. Wymondham, Norfolk, between 1895 and 1905 (1483-1544)
English to Richard III; 200-300 silver coins.
BNJ 24 (1943-4), 216; Thompson 1956, no. 383; Allen 2002a, no. 275; Allen 2012a, no. 494.

K28. Dunstable, Bedfordshire, 1835 (1483-early 16th century?)
French; uncertain no. of silver coins.
Bagshawe 1927, 336, 339; Thompson 1956, no. 147; Allen 2002a, no. 274; Allen 2012a, no. 495.

K29. Norfolk, *c.*1881 (*c.*1485)
English to Richard III and Irish; hoard or parcel of 136 silver coins.
Lawrence 1911; Thompson 1956, no. 289; Allen 2002a, no. 277; Allen 2012a, no. 496.

K30. Unknown Site, in or before 1904 (*c.*1485)
English to Richard III; Irish and Burgundian; parcel of 381 coins (5 gold + 376 silver).
Lawrence 1903-4; Thompson 1956, no. 369; Allen 2002a, no. 332; Allen 2012a, no. 497.

K31. Lancaster (St Leonard's Hospital), Lancashire, between 1849 and 1871 (1485-1544)
English to Henry VII; 4 gold coins.
White 1985-6, no. 5; Allen 2002a, no. 276; Allen 2012a, no. 498.

K32. Burlands, Somerset, 1800 (1486-1544)
English, including Henry VII York penny; more than 50 silver coins.
Proceedings of the Somersetshire Archaeological and Natural History Society 67 (1921), lxxvii; Allen 2002a, no. 278; Allen 2012a, no. 499.

K33. Ryther, North Yorkshire, 1992 (*c.*1487)
English to Henry VII Facing Bust issue type I pence of York; Irish, Scottish and Burgundian; 817 silver coins.
Barclay with Jennings 1995; Allen 2002a, no. 279; Allen 2003, no. 275/E; Allen 2012a, no. 500.

K34. Damerham, Hampshire, 'several years' to 2002 (*c.* 1480s/1490s)
English to Edward IV second reign and Irish; 16 silver coins.
TAR 2001, no. 210; *CH* 2003, no. 34; Allen 2012a, no. 501.

K35. Clay Coton, Northamptonshire, before 1864 (late 1480s)
English to Henry VII Facing Bust issue class II or III and Irish; 433 silver coins.
Pownall 1866; Brown and Dolley 1971, no. EL2; Allen 2002a, no. 281; Allen 2012a, no. 502.

K36. Hounslow, London, 1861 (late 1480s-1490s)
English to Henry VII Facing Bust issue class II or IIIa; Irish and Burgundian; 376 silver coins.
Bergne 1861; Thompson 1956, no. 195; Allen 2002a, no. 280; Allen 2012a, no. 503.

K37. Unknown Site, in or before 1900 (late 1480s-*c.*1502)
English to Henry VII Facing Bust issue class IIIc; hoard or parcel of 62 silver coins.
Lawrence 1900; Allen 2002a, no. 333; Allen 2012a, no. 504.

K38. Deeping St James, Lincolnshire, 1956 (late 1480s-*c.*1510?)
English to Henry VII Facing Bust issue halfgroats of Canterbury, privy mark Tun, and Portuguese; 11 coins (10 silver + 1 billon).
Lincolnshire Architectural and Archaeological Society Reports and Papers 7 (1) (1957), 20-1; 'Deeping St. James hoard'**, Lincolnshire** *Architectural and Archaeological Society Reports and Papers* 9 (1) (1961), 24; Cook 1994, 72; Allen 2002a, no. 287; Allen 2003, no. 97/E; Allen 2012a, no. 505.

K39. Lichfield district, Staffordshire, 1998 (late 1480s-*c.*1510?)
English to Henry VII Facing Bust issue class IIIb and Burgundian; 13 groats + 5 double patards.
TAR 1998-9, no. 354; *CH* 2000, no. 52; Allen 2002a, no. 286; Allen 2012a, no. 506. [Potteries Museum and Art Gallery, Stoke-on-Trent]

K40. Mendelsham Green, **Suffolk**, 1992 (late 1480s-*c.*1510?)
English to Henry VII Facing Bust issue class IIIc; Burgundian and Portuguese; 28 silver coins.
Cook 1994, 70-5; Allen 2002a, no. 289; Allen 2003, no. 217/E; Allen 2012a, no. 507.

K41. Basingstoke area, Hampshire, 2007 (late 1480s-1544)
English to Henry VII Facing Bust issue and Burgundian; 3 silver coins.
PATAR 2007, no. 209; *CH* 2009, no. 85; Allen 2012a, no. 508.

K42. Queenhithe, London, 1980 (late 15th century)
English counterfeits; more than 500 silver coins.
Archibald with Cowell 1980; *CH* 7 (1985), no. 556; Allen 2002a, no. 282; Allen 2012a, no. 509.

K43. Eglwys Brewis, Vale of Glamorgan, *c.* 1900 (*c.* 1500-44?)
English to Henry VII; *c.* 50 silver and one gold coin.
Boon 1986: 124; Allen forthcoming, no. 55.

K44. Bleadon, North Somerset, before 1968 (late 15th/early 16th century)
English, including Edward II, and Portuguese; uncertain no. of silver and copper coins.
Du Quesne-Bird 1971, 138; *CH* 2 (1976), no. 460; Allen 2002a, no. 283; Allen 2003, no. 45/E; Allen 2012a, no. 510.

K45. Carmarthen Priory, Carmarthen, 1855 (*c.* 1500-44?)
English to Henry VII Facing Bust issue class III; 2 coins.
Half groats, m.m. tun (N1712)
Boon 1986: 125.

K46. Oxford (Carfax), Oxfordshire, 1931 (early 16th century)
Portuguese and Spanish; 1 silver + 45 copper coins; total 46.
Brown and Dolley 1971, no. EL11; Kent 1985, 392, 404; Allen 2002a, no. 284; Allen 2012a, no. 511.

K47. East Lexham area, Norfolk, 2004-7 (c1500)
English to Henry VII Facing Bust issue class IIIc; 11 silver coins.
PATAR 2007, no. 563; *CH* 2009, no. 83; Allen 2012a, no. 512.

K48. Grasmere (Pennyrock Falls), Cumbria, 1978 (*c.*1500)
English to Henry VII Sovereign type Durham penny of Bishop Fox and Irish; 63 silver coins.
CH 5 (1979), no. 292; Allen 2002a, no. 285; Allen 2003, no. 256/E; Allen 2012a, no. 513.

K49. Wallingford, Oxfordshire, 1889 (*c.*1502-4)
English to Henry VII Facing Bust issue class IIIc or IVa; *c.*40-50 silver coins.
Montagu 1892; Brown and Dolley 1971, no. EL5; Allen 2002a, no. 288; Allen 2012a, no. 514.

K50. Norham Castle, Northumberland, 1950-1 (*c.*1502-4 or 1513?)
English to Henry VII Facing Bust issue class IV and Burgundian; 23 silver coins.
Rigold 1949-51; Brown and Dolley 1971, no. EL4; Allen 2002a, no. 307; Allen 2012a, no. 515.

K51. Stanley, **Durham**, 1956 or 1957 (1504-44)
English, including Henry VII Profile issue; 14 silver coins.
Corbitt 1961; Brown and Dolley 1971, no. EL17; Allen 2002a, no. 291; Allen 2012a, no. 517.

K52. Bury St Edmunds, **Suffolk**, 1861 (*c.*1504-5)
English to Henry VII Profile issue and Burgundian; *c.*380 silver coins.
Warren 1862; Brown and Dolley 1971, no. EL1; Allen 2002a, no. 290; Allen 2003, no. 62/E; Allen 2012a, no. 518.

K53. Hartford, Cambridgeshire, 1964 (*c.*1504-5)
English to Henry VII Profile issue, privy mark Pheon; Irish, Scottish, Burgundian and Portuguese; 1,108 silver coins.
Dickinson 1965; Archibald and Kent 1974; *CH* 2 (1976), no. 461; Allen 2002a, no. 305; Allen 2012a, no. 519.

K54. Warminster (or Crockerton), Wiltshire, 1972 (*c.*1505-10)
English to Henry VII Profile issue, privy mark Pheon; 32 silver coins.

CH 1 (1975), no. 378; Allen 2002a, no. 292; Allen 2003, no. 315/E; Allen 2012a, no. 520.

K55. Witchingham, Norfolk, 1805 (*c.*1505-10)

English to Henry VII Profile issue, privy mark Pheon and Burgundian; hoard or parcel of 382 coins (2 gold + 380 silver).

Blunt and Dolley 1964; Woodhead 1996, no. 102; Allen 2002a, no. 306; Allen 2003, no. 323/E; Allen 2012a, no. 521.

K56. Downham, Lancashire, 1992 (*c.*1505-1544)

English to Henry VII Profile issue, privy mark Pheon; Burgundian and Portuguese; 13 silver coins.

Cook and Lewis 1996; Allen 2002a, no. 295; Allen 2003, no. 109/E; Allen 2012a, no. 522.

K57. Henstridge, Somerset, 1936 (*c.*1505-1544)

English to Henry VII Profile issue, privy mark Pheon; 4 gold coins.

GM 78 (1808): 40; Allen 1949-51; Brown and Dolley 1971, no. EL3; Woodhead 1996, no. 101; Cherry 2000, no. 10; Allen 2002a, no. 293; Allen 2012a, no. 523.

K58. Monkton Deverill, Wiltshire, 1990 (*c.*1505-1544)

English to Henry VII Profile issue, privy mark Pheon; 3 silver coins.

Cook 1994, 75-6; Allen 2002a, no. 294; Allen 2012a, no. 524.

K59. Asthall, Oxfordshire, 2007 (1509-26)

English to Henry VIII first coinage; 210 gold coins.

Allen 2012a, no. 525.

K60. London (St Mary Spital) (or 'Spitalfields'), 2001 (1509-26)

English to Henry VIII first coinage; 8 gold coins.

TAR 2001, no. 211; *CH* 2002, no. 43; Allen 2002a, no. 299; Allen 2012a, no. 527.

K61. Park Street (or 'St Albans'), Hertfordshire, 1886 (1509-26)

English to Henry VIII first coinage; 221 gold coins.

Evans 1886; Brown and Dolley 1971, no. EL12; Manville 1995, 175; Woodhead 1996, no. 104; Allen 2002a, no. 301; Allen 2012a, no. 528.

K62. South Warwickshire, 2002 (1509-26)

English to Henry VIII first coinage and Burgundian; (20 coins) 1 gold coin and 19 silver coins and a silver-gilt finger ring in four pieces

TAR 2002, no. 228; *CH* 2004, 25; Allen 2012a, no. 529. [Warwickshire Museum]

K63. City of London, 2006 (1509-26?)

English to Henry VIII first coinage; 8 silver coins.

TAR 2005/6, no. 1199; *CH* 2008, no. 80; Allen 2012a, no. 530.

K64. Ormesby, Redcar and Cleveland, 1838 (1509-26?)

English to Henry VIII first coinage?; uncertain no. of gold coins.

Beard 1933, 276-7; Brown and Dolley 1971, no. EL18; Woodhead 1996, no. 111; Allen 2002a, no. 303; Allen 2012a, no. 532.

K65. Stratford St Andrew, **Suffolk**, 1990-1 (1509-26?)

English to Henry VIII first coinage; 2 gold coins.

Cook 1994, 78-9; Allen 2002a, no. 300; Allen 2012a, no. 533.

K66. Westminster (Cock and Tabard Inn), in or shortly after 1871 (1509-26?)

English to Henry VIII (first coinage, only?); 54 gold coins.

Sotheby, Wilkinson & Hodge, 15 November 1880, lots 261, 275, 290; Beard 1933, 270-2; Brown and Dolley 1971, no. EL15; Woodhead 1996, no. 110; Allen 2002a, no. 302; Allen 2012a, no. 534.

K67. Cranworth, Norfolk, 1855 (1509-44)

English to Henry VIII; uncertain no. of silver coins.

Norfolk Archaeology 6 (1860-3), 380; Allen 2002a, no. 296.

K68. Leighton Buzzard, Bedfordshire, 1881 (1509-44)

English to Henry VIII and Portuguese; 11 silver coins.

Cook 1994, 71 n. 7; Allen 2002a, no. 297; Allen 2012a, no. 535.

K69. Loders, Dorset, 1840 (1509-44)

English to Henry VIII; *c.*400-500 silver coins.

The Gentleman's Magazine new ser. 14 (1840), 297; Brown and Dolley 1971, no. EL8; Allen 2002a, no. 298; Allen 2012a, no. 536.

K70. Middlesbrough, in or before 1954 (1509-51)

English to Henry VIII; uncertain no. of silver coins.

Brown and Dolley 1971, no. EL10; Allen 2002a, no. 318; Allen 2012a, no. 537.

K71. Tintagel Castle, Cornwall, in or before 1939 (1509-51)

English to Henry VIII; 17 silver coins.

Brown and Dolley 1971, no. EL20; Allen 2002a, no. 319; Allen 2012a, no. 538.

K72. Okeford Fitzpaine, Dorset, 2004 (1514-26)

English to Henry VIII first coinage, including York halfgroat of Archbishop Thomas Wolsey; 213 silver coins.

TAR 2004, no. 469; *CH* 2007, no. 70; Allen 2012a, no. 539.

K73. Blakeney, Norfolk, 2005 (1519-44)

Venetian; 3 silver coins.

TAR 2005/6, no. 1198; *CH* 2009, no. 79; Allen 2012a, no. 540.

K74. Fonthill Gifford, Wiltshire, 1861 (*c.* 1520s)

English to Henry VII Profile issue and Venetian; 9 silver coins.

Blunt 1975-6; *CH* 5 (1979), no. 294; Saunders and Saunders 1991, 141, 150; Allen 2002a, no. 308; Allen 2003, no. 136/E; Allen 2012a, no. 541.

K75. Wanswell, Gloucestershire, 1997 (*c.* 1520s)

English to Henry VII Facing Bust issue class IVb, privy mark Cross Crosslet, and Venetian; 3 silver coins.

TAR 1997-8, no. 150; *CH* 1999, no. 58; Allen 2002a, no. 309; Allen 2012a, no. 542.

K76. Bedale, North Yorkshire, 1817 (1526-44)

English to Henry VIII second coinage; hoard or parcel of 9 coins (4 gold + 5 silver).

Barclay 1997; Allen 2002a, no. 314; Allen 2012a, no. 543.

K77. Kirtling, Cambridgeshire, 1842 (1526-44)

English to Henry VIII second coinage; *c.*150 coins (5 gold + *c.*145 silver).

'Discovery of English gold and silver coins', *NC* 5 (1842-3), 203; Brown and Dolley 1971, no. EL7; Manville 1993a, 104; Woodhead 1996, no. 109; Allen 2002a, no. 310; Allen 2003, no. 276/E; Allen 2012a, no. 544.

K78. Sherborne, Dorset, 1970 (1526-44)

English to Henry VIII second coinage; Portuguese and Spanish; 134 coins (10 gold + 124 silver.

BNJ 39 (1970), 210; Brown 1973, no. EL22; Kent 1985, 392-3, 404; Cook 1994, 77; Allen 2002a, no. 312; Kelleher 2007, no. 1; Allen 2012a, no. 545.

K79. Welnetham, **Suffolk**, *c.*1876 (1526-44)

English to Henry VIII second coinage and Burgundian; uncertain no. of coins.

JBAA 36 (1880), 104-5; Allen 2002a, no. 311; Allen 2012a, no. 546.

K80. Cornwall, in or shortly before 1820 (1530-44)

English to Henry VIII second coinage, Bishop Cuthbert Tunstall of Durham; uncertain no of coins (all silver?).

Brown and Dolley 1971, no. EM11; Manville 1993a, 104; Allen 2002a, no. 313; Allen 2003, no. 86/E; Allen 2012a, no. 547.

K81. Corley/Coundon, Warwickshire/Coventry, 1999 (*c.*1532-44)

English to Henry VIII second coinage, privy mark Arrow; 13 silver coins + 'unidentified foreign coin/jeton'.

TAR 1998-9, no. 356; *CH* 2001, no. 91; Allen 2002a, no. 315; Allen 2012a, no. 548. [To be determined]

K82. Maidstone, **Kent**, 1952 (1534-44)

English to Henry VIII second coinage, Archbishop Thomas Cranmer of Canterbury; Irish, Burgundian, Portuguese and Venetian; 503 coins (5 gold + 498 silver).

Dolley and Winstanley with Warhurst 1952-4; Woodhead 1996, no. 107; Allen 2002a, no. 316; Allen 2003, no. 241/E; Allen 2012a, no. 549.

K83. Peckleton, Leicestershire, 1994 (1534-44)

English to Henry VIII second coinage, Archbishop Thomas Cranmer of Canterbury; 18 coins (3 gold + 15 silver).

Cook 1994, 76-8; *TTRCAR* 1996-7, no. 19; *CH* 1996, no. 138; Allen 2002a, no. 317; Allen 2003, no. 251/E; Allen 2012a, no. 550

K84. Cefn Garw, Tregaer, Monmouthshire, 1962 (1536-44)

English to Henry VIII second coinage; Portuguese; 9 gold coins.

Boon 1986: 125-6; Kelleher 2007: no. 2; Allen forthcoming, no. 57.

K85. Unknown Site, in or before 1902 (*c.*1537-1544)

English to Henry VIII second coinage, privy mark Sunburst; Burgundian and Portuguese; hoard or parcel of 322 silver coins.

Lawrence 1902; Brown and Dolley 1971, no. EL14; Cook 1994, 71, 77; Allen 2002a, no. 334; Allen 2003, no. 302/U; Allen 2012a, no. 551.

K86. Monkton, **Kent**, 1998 (*c.*1538-1544)

English to Henry VIII second coinage, privy mark Lis (3); 42 silver coins.

TAR 1998-9, no. 355; *CH* 2001, no. 90; Allen 2002a, no. 304; Allen 2012a, no. 552. [Disclaimed; returned to finders]

APPENDIX C – EXCAVATED ASSEMBLAGES

Code	Site		I	II	III	IV	V	VI	VII	VIII	IX	X	Gold	Unc.	F	Total
AV1	Bristol	Castle (D)	-	-/-/1	-	-	-	-	-	-	-	-	-	-	-	1
		Cathedral Minster House (B)	-	-	-	-	-	1/-/-	-	-	-	-	-	-	-	1
		Harbour (E)	-	-	-	-	-	-	-	-	-	-/1/-/-/-	-	-	-	1
		St Bartholomew's Hospital (H)	-	-	-	-	-	-/1/2	3/-/-	-	-	-	-	-/2/-	1	9
		St James' Priory (A)	-	-	-	-	2/-/-	-	-	-	-/-/1/-/-	-	-	-	1	4
		Temple Street (E)	-	-	-	-	-	-	-	-	-/-/1/1/-	-/-/-/2/-	-	1/4/-	2	11
BED1	Clapham (G)		-	-	-	-	-	?	?	-	-	-	-	-	-	?
BRK 1	Newbury, Bartholomew Street (E)		-	-	-	-	-	-	-/1/-	-	-	-	-	-	1	2
BRK2	Reading, Waterfront (E)		-/1/-	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	2
BRK3	Wallingford Castle (D)		-	?	-	-	-	-	-	-	-	-	-	-	-	1
BRK4	Old Windsor (I)		-	1/-/-	-	-	-	-	-	-	-	-	-	-	-	1
BRK5	Windsor (E)		-	-	-/1/1	-	-	-	-	-	-	-/-/-/1/-	-	-	-	2
BUC1	Bradwell Bury (I)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
BUC2	Buckingham, Hunter Street (E)		-	-	-	-	-	-	2/-/-	-	-	-	-	-	-	2
BUC3	Caldecotte (I)		-	-	-	-	-/2/1	-/-/1	1/1/-	-	-	-	-	-	-	6
BUC4	Tattenhoe (I)		-	-/-/1	-	-	-	-	2/-/-	1/-/2/-/-	-/-/1/-/-	-/-/2/1/-	-	-	1	11
BUC5	Walton, Aylesbury (I)		-	1/-/-	-	-	-	-	-	-	-	-	-	-	-	1
BUC6	Westbury-by-Shenley (I)		-	-/1/-	1/-/-	-	1/1/3	1/3/2	6/-/3		-/-/1/-/-	-/-/1/-/-	-	1/-/-	3	29
BUC7	Woughton on the Green (I)		-	-	-	-	-	-	-	-	-	-	-	?	-	?
BUC8	Wroughton Village (I)		-	-	-	-	-	-	-	-/1/-/-/-	-	-	-	-	1	2
CAM1	Cambridge (J)		-	-	-	-	?	?	-	-	-	-	-	-	-	?
CAM2	Chapel Head, Warboys (I)		-	-	-	-	-	-	-	-	-	-	-	1?	-	1
CAM3	Ely (E)		-	-	-	1/-/-	2/-/-	-	1/-/-	-	-	-	-	1	1	6
CAM4	Denny Abbey (A)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
CAM5	Peterborough (E)		-	-	1/-/-	-	-	-	-	-	-	-	-	-	-	1
CAM6	Ramsey Abbey (A)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
CAM7	St Neots Abbey (A)		-	-	-	-	-	-	-	-	-	-	-	?	-	?
CHS1	Beeston Castle (D)		-	-	-	-	1/1/-	1/-/-	4/1/-	-	-	-	-	-	-	8
CHS2	Chester	Dominican Friary (A)	-	-	-	-	-	-/1/-	1/-/-	-/1/3/-/-	-	-	-	1	-	7
		Northgate	-	-	-	-	-	-	-	-	-	-	-	?	-	?

		Brewery (E)														
CHS3	Norton Priory (A)		-	-	-	-	2/-/-	-	1/-/-	-	-	-	-	-	-	3
CNW1	Tintagel (D)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
DUR1	Barnard Castle (D)		-	1/-/-	1/-/-	-	-	1/-/-	1/1/1	-	-	-	-	1/-/-	-	7
DUR2	Durham	Leazes Bowl (E)	-	1/-/-	-	-	-	-	-	-	-	-	-	1/-/-	-	2
		New Elvet (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
DUR3	Hartlepool	Church Close (E)	-	-	-	-	-	-	2/-/-	-	-	-	-	-	-	2
		Church Walk (E)	-	-	-	-	-	-	2/-/-	-	-	-	-	-	-	2
		Graham Street School (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		Southgate (E)	-	-	-	-	2/-/-	4/-/-	1/-/1	-	-	-	-	-	-	8
DUR4	Scargill Castle (D)		-	-	-	-	-	-	-	-	-	-	-	1/-/-	-	1
DUR5	Thrislington (I)		-	-	-	-	1/-/-	1/-/-	3/-/-	-	-	-	-	-	-	5
DUR6	Ulnaby Hall, High Coniscliffe (I)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
CMB1	Carlisle	Blackfriars Street (E)	-	-	-	-	2/-/-	-	-/2/-	-	-	-	-	-	-	4
		Long Lane (E)	-	-	-	-	-/1/-	-	-	-/-/1/-/-	-	-	-	-	-	2
		Infirmary (E)	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	-	1
		The Lanes (E)	-	-	-	-	-	-	3/-/-	-	-/-/1/-/-	-	-	-	-	4
DRB1	Codnor Castle (D)		-	-	-	-	-	-	-	-	-	-	1	-	1	2
DEV1	Buckland Abbey (A)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
DEV2	Exeter	(E)	2/-/-	-/1/-	-	-	5/-/-	-	2/1/1	-	1/-/-/-/-	-	-	3/-/-	4	20
		Burnt House Lane (E)	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	-	-	1
		Cowley Bridge Road (E)	-	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	-	1
		North Street (E)	-	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	-	1
		Northernhay (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		Heavitree Road (E)	-	-	-	-	-	-	-	-/1/-/-/-	-	-	-	-	-	1
		Spicer Road (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		Strawberry Plantation (E)	-	-	-	-	-	-	-	-/1/-/-/-	-	-	-	-	-	1
DEV3	Exmouth (E)		-	-	-	-	-	-	2/-/-	-/1/-/-/-	-	-	-	-	-	2
DEV4	Okehampton Castle (D)		-	-	-	-	-	1/1/-	3/-/-	-	-/-/1/-/-	-	-	-	-	6
DEV5	Plymouth, St Andrews Street (E)		-	-	-	-	-	-	-	-	-	-	-	1/-/-	-	1
DEV6	Tavistock Abbey (A)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
DEV7	Totnes, 39 Fore Street (E)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
DST1	Christchurch (E)		-	-	-	-	1/-/-	-	-/-/1	-	-/1/-/-/-	-	-	-	-	3

DST2	Poole	Town (E)	-	-	-	-	1/-/-	-	3/-/-	1/-/-/-/-	-	-	-	1/-1/-/-	3	10
		Foundry (K)	-	-	-	-	-	-	-	-	-	1/-/-/-/-	-	1/-/-	2	4
DST3	Sherborne Castle (D)		-	-	-	-	2/2/-	-	4/-/-	-/-/1/-/-	-	-	-	-	-	9
ESX1	Barking Abbey (A)		-/-/1	1/-/-	-/-/1	1/-/-	2/-/-	-/1/-	-	-	-/-/1/-/-	-	-	-	-	8
ESX2	Chelmsford, 63 New London Road (E)		-	-	-	-	1/-/-	-	4/-/-	-/-/1/-/-	-	-	-	1/-/-	1	8
ESX3	Chelmsford Priory (A)		-	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	2	3
ESX4	Colchester	Lion Walk (E)	-/1/-	1/-/-	-	-	-	-	1/1/1	-	-/-/-/2/-	-/1/-/-/-	-	-	-	8
		Cups Hotel (E)	-	-	-	-	-	-/-/1	-	-	-	-	-	-	-	1
		Middleborough (E)	-	-	-	-	1/-/-	1/-/-	-/-/1	-	-	-	-	-	2	5
		Butt Road (E)	-	-	-	-	-	-	-	-	-	-	-	1/-/-	-	1
		Long Wyre Street (E)	-	-	-	-	-	-	1/-/1	-	-	-	-	-	-	2
		High Street (E)	-	-	-	-	-	1/-/-	-	-	-	-	-	-	-	1
ESX5	Harwich (E)		-	-	-	-	-	-	1/-/-	-	-	-	-	1/-/-	1	3
ESX6	Maldon (E)		-	-	-	-	-/1/-	-	-	-/-/-/1/-	-	-	-	2/-/-	1	5
ESX7	Pleshey	Castle (D)	-	-	-	-	-	-	2/-/-	-	-	-	-	-	1	3
		Old Church (C)														
ESX8	Rivenhall (I)		-	-	-	-	-/1/-	-/1/-	2/-/-	-	-	-	-	-	-	4
ESX9	Springfield, Chelmsford (I)		-	-	-	-	1/-/-	-	-	-	-	-	-	-/-/1	-	2
ESX10	St Osyth (I)		-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	1
ESX11	Stansted Airport (I)		-	-	1/-/-	-/1/-	2/4/1	-	-	-	-	-	-	-	-	9
ESX12	St Mary Stratford Langthorne Abbey (A)		-	1/-/-	-	-	-/1/-	-	-	1/-/-/-/-	1/-/-/-/-	-	-	-	-	4
ESX13	Writtle (F)		-	-	-	-	1/-/-	-	4/-/-	-/-/1/-/-	-/-/4/-/-	-	-	-	2	12
GLO1	Acton Court (G)		-	-	-	-	-/-/1	-	-	-	-	4/1/3/-/-	-	1/-/-	2	12
GLO2	Avening, County Primary School (?)		-	?	-	-	-	-	-	-	-	-	-	-	-	1
GLO3	Cirencester Abbey (A)		1/-/-	-	-	-	1/-/-	-	1/-/-	-/-/1/-/-	-/-/-/1/-	-/-/-/-/1	-	2/-/-	-	8
GLO4	Gloucester	Market Hall (E)	-	-	-	-/1/-	-	-	-	-	-	-	-	-	-	1
		Saintbridge, Redpoll Way (E)	-	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	1
		St Oswald's Priory (A)	1/-/-	-	-	-	-	1/-/-	1/-/-	-	-	-	-	3	-	6
GLO5	Hailes Abbey (A)		-	-	-	-	-	2/-/-	2/-/-	-	-/-/-/1/-	1/1/1/1/-		1/-/6/-/-	-	16
GLO6	Holm Castle, Tewkesbury (D)		-	-	-	-	-	-	2/-/-	-	-	-	-	-	2	4
GLO7	King's Stanley Moat (G)		-	-	4/1/-	-	-	-	-	-	-	-	-	-	-	5
GLO8	Upton (I)		-	-	-	-	-	-/1/-	-	-	-	-	-	-	-	1
GLO9	Winchcombe (I)		-	-	-	1/-/-	-/1/-	-	-	-	-	-	-	-	-	2
LND1	City of London	Aldgate, Holy Trinity Priory (A)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1

		Aldgate, Gardiner's Corner (E)	-	-	-/-/1	-	-	-	-	-	-	-	-	-	-	1
		Baltic House (K)	-	-	-	-	-	-	-	-	-	-	-	1?	-	1
		Cannon Street Station (E)	-	-	-	-	-	-	-	-	-	-	1	-	-	1
		Charterhouse (E)	-	-	-	-	-	-	-	-	-/-/-/1/-	-	-	-	-	1
		Middle Temple Library (J)	-	-	-	-	-	-	-	-	-	2/-/-/-/-	-	-	-	2
		Vintry (E)	1/9/1	12/18/5	2/14/3	9/13/5	28/41/33	7/16/17	46/33/17	-/1/5/-/-	-/-/2/1/-	-/1/-/1/-	-	-/-/9/3/1	142	
LND2	Arundel House, Strand (E)		-	-	-	-	-	-	-	-	-	-	-	-	1	1
LND3	Lincoln's Inn,Camden (J)		-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	-	1
LDN4	Greenwich (E)		-	-	-	-	-	-	-	-	-	-	-	2	-	2
LDN5	Heathrow Terminal 5 (I)		-	-	-	-	-/2/2	-	-	-	-/-/-/1/-	-/2/-/-/-	-	-	-	7
LDN6	Shepperton (x)		-	-	-	-	-	-	-	-	-	-	-	-	1	1
LDN7	Southwark	Millennium Bridge (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		Falstoff Place Moat Fill (G)	-	-	-	-	-	-	-	-	-	1/-/1/1/-	-	2/1/-	2	9
LDN8	Stepney High Street (I)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
LDN9	Tower of London, Royal Mint Site (D)		-	-/1/-	-	-	-	1/-/-	10/1/1	-	-	-	-	-	1	16
LDN10	Westminster Abbey (B)		-	-	-	-	-	-	-	-	-	-	-	1	-	1
HMP1	Faccombe Netherton (G)		-	1/-/-	-/1/-	3/-/-	-/1/-	-	14/2/1	-/-/1/-/-	-	-	-	-	5	29
HMP2	Foxcotte (I)		?	-	-	-	-	-	-	-	-	-	-	-	-	1
HMP3	Hatch Warren (I)		-	-	-	-	-	-	-/-/3	-	-	-	-	-	-	3
HMP4	Odiham Castle (D)		-	-	-	-	1/1/-	-	1/-/-	1/-/-/-/-	-	-	-	-	1	5
HMP5	Portchester Castle (D)		-	-	1/1/-	-	-	1/-/-	-	-	-	-	-	1/-/-	1	6
HMP6	Portsmouth, Domus Dei Hospital (H)		-	-	-	-	-	1/-/-	-	-	-	-	-	-	-	1
HMP7	Selborne Priory (A)		-	-	-	-	-	-/1/-	2/-/-	2/-/-/-/-	-/1/1/-/-	-/-/-/1/-	-	-	1	9
HMP8	Southampton	Bugle Street (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
		Cuckoo Lane (E)	-	-	-	-	-	-	1/-/-	-/-/1/-/-	-/-/2/1/-	-	-	1/-/-	1	7
		High Street (E)	-	1/-/-	-	1/-/-	1/-/-	-	1/-/1	-	-	-	-	3/-/-	4	12
		Winkle Street (E)	-	-	-	-	-	-	-	-	-	-	-	-	2	2
		Wacher's Excavations (E)	-	-	-	-	-	-	1/-/-	-	-/-/1/-/-	-	-	1	1	4
HMP9	St Catherine's Hill (C)		-	1/-/-	-	-	-	-	-	-/-/-/1/-	-	-	-	-	-	2
HMP10	Winchester	ACS (E)	-/1/-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	2
		Brook Street (E)	-	-	-	-	3/1/-	1/1/-	2/-/2	-	-	-	-	-	2	12
		Brook Street	-	-	-	-	2/-/-	-	-	-	-	-	-	2		4

		Shopping Centre (E)														
		Castle Yard (D)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	1	2
		Cathedral (B)	-	-	-	-	-	-	5/-/-	-/1/1/-/-	-	-	-	-	1	8
		Cathedral Area Car Park (B)	1/-/-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	2
		Cathedral Green (B)	5/3/-	1/1/-	-	1/-/-	1/-/-	-	1/-/1	-	-/-/1/-/-	-	-	-	1	16
		Chester Road (E)	-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
		Colebrook Street (E)	-	-	1/-/-	-	-	-	-	-	-	-	-	-	1	2
		Crowder Terrace (E)	-	-	-	1/-/-	-	-	-	-	-	-	-	-	-	1
		Lido (E)	-	-	-	-	-	-	2/-/-	-	-	-	-	-	-	2
		St Paul's Church (C)	-	1/-/-	-	-	-	-	-	-	-	-	-	-	-	1
		Sussex Street (E)	-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
		TS (E)	-	-	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	1
		Victoria Road (E)	1/-/1	-/-/1	-	-	-	2/1/1	1/-/1	-	-	-	-	1/-/-	4	14
		Wolvesey Palace (B)	-	1/-/-	-	-	2/-/1	-	1/-/-	-/-/1/-/-	1/-/-/-/-	-/1/1/-/-	1	-	2	12
HRF1	Hereford	Berrington Street (E)	-	-	-	1/-/-	-	-	-	-	-	-/1/-/-/-	-	1/-/-	-	3
		Bewell House (E)	-	1/-/-	-	-	1/-/-	-	-	-	-	-	-	-	-	2
		Other sites (E)	-	-/1/-	-	-	-	-	-	-/-/1/-/-	-	-	-	-/1/2/-/-	-	5
HRF2	Hampton Wafer (I)		1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
HRT1	Hertford	Castle (D)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	2
		Millbridge (E)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
		Museum Car Park (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		St Mary's Priory (A)	-	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	1
HRT2	Watford, High Street (I)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
IOW1	Carisbrooke Castle (D)		1/1/-	2/-/-	-	-	1/-/-	-	2/-/-	-/1/-/-/-	1/-/-/-/-	-	-	-	1	10
KEN1	Ashford, Parsonage Barn (I)		-	-	-	-	-	-	-/1/-	-/-/1/-/-	-	-	-	-	-	2
KEN2	Aylesford Priory (A)		-	-	-	-	-	-	-/1/-	-	-	-	-	-	-	1
KEN3	Canterbury	Area R (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	1	-	2
		Burgate Street (E)	-	-	-	-	-	-	-	-	-	-	-	2/-/-	1	3
		Bus Station (E)	-	-	-	-	1/-/-	-	-/1/-	-	-	-	-	-	-	2

		Canterbury Lane (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	1/1/-	2	5
		Marlowe Avenue (E)	-	-	-	-	-	1/1/-	1/-/-	-	-	-/1/-/-/-	-	-	1	5
		Marlowe Car Park (E)	2/-/-	-	1/-/-	-	-	1/-/1	-	-/-/2/-/-	-	-/-/-/1/-	-	2/-/-	5	15
		St George's Street (E)	-	-	-	-	-	-	-	-	-	-	-	-	2	2
		Whitefriars (A)	-	-	-/1/-	1/1/-	1/2/3	-	4/5/1	-/1/2/-/-	-/-/1/2/-	-/1/2/-/-	-	4/4/-	14	51
		Whitehall Road (E)	-	-	-	-	-	-	-	-	-/-/2/-/-	-	-	1/-/-	-	3
		King's Street (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
KEN4	Dover	Bingo Hall (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
		Playground (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
KEN5	Ebony, Chapel Bank (C)		-	-	-	-	-	-	-/2/-	-/-/1/2/-	-/-/1/2/-	-	-	-/-/1	1	10
KEN6	Faversham Abbey (A)		-	-	-	-	-	-	-/-/1	-	-	-	-	-	-	1
KEN7	Higham Priory (A)		-	-	-	-	-/1/-	-	-	-	-	-	-	-	-	1
KEN8	Highborough Hill, Eastry (I)		-	-	-	-	-	-/1/-	-	-	-	-	-	-	-	1
KEN9	Iwade (I)		-	-	-	-	-	-/-/1	-	-	-	-	-	-/-/2	-	3
KEN10	Moat Farm, Leigh (G)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
KEN11	Middle Stoke, Hoo Peninsula (I)		-	-	-	-	-/-/1	-	-	-	-	-	-	-	-	1
KEN12	New Romney (E)		-	-	-	-	2/8/-	2/2/-	3/-/1	-	-	-	-	-	2	20
KEN13	Orpington (I)		-	-	-	-	-	-	-	-	-	-	-	3/?	-	4
KEN14	Rochester	Prior's Gate House (E)	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	-	-	1
		Defences (E)	-	-	-	-	1/-/-	-	-	-	-	-	-	-	1	2
KEN15	Springhead (I)		-	-	-	-	-	-/-/1	2/1/-	-/-/1/-/-	-	-	-	-	-	5
KEN16	St Mary of Ospringe Hospital (H)		-	-	-	-	-	-/2/-	2/-/-	-/-/1/-/-	-	-/-/2/-/-	-	-	-	7
KEN17	St Nicholas-at-Wade, All Saints Church (C)		-	-	-	-	-	-	-	-	-	-	-	-	1	1
KEN18	St Augustine's Abbey, Canterbury (A)		-	-	-	-	-/2/-	-/1/-	1/1/5	1/-/3/-/-	3/1/1/1/1	1/-/1/-/-	-	2/-/- +?	4	29
KEN19	Tunstall (G)		-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	1
LAN1	Camp House Farm, Hornby-with-Farleton (G)		-	-	-	-	-	-	1/-/-	-	-	-	-	?	-	2
LEI1	Austin Friars (A)		-	-	-	-	-	-	1/2/-	-	-	-	-	-	-	3
LEI2	Groby Old Hall (G)		-	-	-	-	-	-/-/1	-	-	-	-	-	-/-/1	-	2
LEI3	Leicester, Causeway Lane (E)		-	-	-	-	1/1/-	-	-	-	-	-	-	-	-	2
LEI4	North Manor Farm, South Croxton (G)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1

LIN1	Donington (I)		-/1/-	-	-	-	-	-	-	-	-	-	-	-	-	1
LIN2	Dragonby (I)		-	-	-	-	-	-	-/-/1	-	-/-/1/-/-	-	-	-	-	2
LIN3	Flixborough (I)		-	-	-	-	1/-/-	-	-	-	-	-	-	-/1/-	-	2
LIN4	Glentham (I)		1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
LIN5	Goltho (I)		-	-	2/1/-	-	-	-	-	-	-	-	-	-	-	3
LIN6	Lincoln	Bishop's Palace (B)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
		Flaxengate (E)	1/1/-	-	-	-	-	-	-	-	-	-	-	-	-	2
		Park Excavations (E)	-	-	-	-	1/-/-	-	-	-/-/1/-/-	-	-	-	-	-	2
		St Mark's (E)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
		St Mary's Guildhall (E)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
		Usher Gallery (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
		West Parade Site (E)	-	-	-	-	2/-/-	-	1/-/-	-	-	-	-	-	3	3
LIN7	South Witham (A)		-	-	-	-	3/1/-	-/1/-	1/-/-	-	-/-/1/-/-	-	-	-	2	9
LIN8	Stamford Castle (D)		-/1/-	-	1/-/-	1/-/-	-	2/1/-	1/-/1	1/-/-/-/-	-/1/-/-/-	-	-	-	1	11
NFK1	Baconsthorpe Castle (D)		-	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	1	1
NFK2	Bowthorpe, St Michael's Church (C)		-	-	-	-	-	-	-	-	-	-	-	-/-/1	-	1
NFK3	Bromholm Priory (A)		-	-	1/-/-	-	6/7/1	-/2/-	37/2/4	1/4/7/2/-	1/-/5/2/-	1/1/3/-/-	-	3[1]/1/-	7	99
NFK4	Caistor-on-Sea (I)		-	-	-	-/1/-	1/1/-	-/2/1	8/1/-	1/2/3/1/-	1/-/-/1/-	1/-/-/-/-	1	1/-/2/1/1 +?	2	
NFK5	Castle Acre (D)		1/-/-	-/1/-	6/4/1	-	-	-	1/-/-	-	-	-/-/-/1/-	-	-	-	15
NFK6	Castle Rising (D)		-	-	-	-/1/-	-	-	-	-/-/1/-/-	-	-/1/-/-/-	-	-	-	3
NFK7	Kilverstone (I)		-	-	-	-	-	-/1/-	1/-/-	-	-	-	-	-	3	5
NFK8	King's Lynn (E)		-	-	-	-	-	-	1/1/2	-	-	-	-	-	1	5
NFK9	Middle Harling (I)		1/-/-	1/-/1	-	-	-/3/-	-/4/2	3/-/1	-/-/1/1/-	-/-/-/1/-	-	-	1/-/-	2	23
NFK10	North Elmham Park (I)		-	-	-	-	-	-	1/-/1	-/-/1/-/-	-	-	-	-/1/-	1	5
NFK11	Norwich	Alms Lane (E)	-	-	-	-	-	-	1/-/-	-	-/-/-/1/-	-	-	3/-/-	-	5
		Botolph Street (E)	-	-	-	-	-	-	-	-	-	-	-	1/1/-	1	3
		Bull Close Road (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		Dragon Hall ,King Street (E)	-	-	1/-/-	-	-	-	-	-	-	-	-	-	-	1

		Heigham Street (E)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
		Oak Street (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	1	2
		Pottergate (E)	-	-	-	-	-	-	-	-	-/-/1/1/-	-	-	1/-/-/-/-	-	3
		St Martin-at-Palace (E)	-	2/-/-	-	-	-	-	-	-	-	-	-	1/-/-/-/-	-	3
		Westwick Street (E)	-	-	-	-	-/1/1	-	-/-/1	-	-	-	-	-	-	3
NFK12	Redcastle Furze, Thetford (E)		-/1/-	-	-	-	-	-	-/1/-	-	-	-	-	-	-	2
NFK13	Snettisham Bypass (I)		-	-	-	-	-/1/-	1/-/-	-	-	-	-	-	-	-	2
NFK14	Thetford	Brandon Road (E)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	1	2
		Kilnyard (E)	-	-	-	-	-	-	-	-	-/-/-/1/-	-	-	-	-	1
		Fulmerston Road (E)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
		Mill Lane (E)	-	-/1/-	1/-/-	-	1/-/2	-/-/1	-	-/-/1/-/-	-	-	-	-/-/2/-/1	-	10
		North of River (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
NHM1	Lyvedon (I)		-	-	-	-	-	-/2/-	1/-/1	-/-/1/-/-	-/-/1/-/-	-	-	-	2	8
NHM2	Northampton	Marefair (E)	-	-	-	-/-/1	-	-	1/-/1	-/-/1/-/-	-	-	-	-	-	1
		St Peter's Street (E)	-	1/-/-	1/-/-	-	-	-	-/1/1	1/1/-/2/-	-	-	-	-/1/-	1	10
NHM3	Raunds (I)		-	-	1/-/-	-	-	-	1/-/1	-	-	-	-	-	1	4
NHM4	West Cotton (I)		-	-	-	-/1/-	1/-/-	3/-/1	-/-/1	-	-	-	-	-	1	8
NHM5	Wicken (I)		-	-	-	-	-	-	-	-	-/-/-/1/-	-	-	-	-	1
NMB1	Jarrow and Monkwearmouth	Jarrow (A)	-	-	-	-	4/-/-	2/1/-	1/-/-	-	-	1/-/-/-/-	-	-	2	11
		Monkwearmouth (A)	-	-	-	-	-	-	-	-	-	-/1/-/-/-	-	-	-	1
NMB2	Prudhoe Castle (D)		-	-	-	-	3/2/-	-	-	-	-	-	-	-	-	5
NMB3	West Whelpington (I)		-	-	-	-	-/1/-	-	-/1/-	-	-	-	-	-	-	2
OXF1	Barentin's Manor, Chalgrove (G)		-	-	-	-	-	-/1/-	1/-/-	5/-/-	1/-/-/-/-	-	-	-	2	10
OXF2	Eynsham Abbey (A)		-	-	-	-	-/1/-	-	-/1/-	-	-	-	-	2/-/-	-	4
OXF3	Oxford	Blackfriars (A)	-	-	-	-	-	-/1/-	-	-	-	-	-	-	1	2
		Bretels (E)	-	-	-	-	-	-/1/-	-/-/1	-	-/1/-/-/-	-	-	-/1/-	4	8
		Dominican Priory (A)	-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
		Hall of St Helen (E)	-	-	-	-	-/1/-		1/1/2	-/-/1/-/-	-	-	-	1/1/-	-	8
		Hinxley Hall, Queen Street (E)	-	-	-	-	-	-	-	-	-	-/-/-/1/-	-	-	-	1

		St Aldate's (E)	-	-	-/1/-	-	-	-	-	-	-	-	-	1/-/-/-/- ?	-	3
		St Frideswide's Tenement (E)	-	-	-	-	-	-	-/-/1	-	-	-	-	-	-	1
		St John's College Well (E)	-	-	-	-	-	-	-	-	-	-	-	1/-/-	-	1
SHR1	Shrewsbury (E)		-	-	-	-	-	-	-	-	-	-	-	-	1	1
SHR2	Shrewsbury Abbey (A)		-	-	-	-	-	-/1/-	-/-/1	-	-	-	-	-	-	2
SOM1	Cannington Cemetary (I)		-	-	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	1
SOM2	Cleeve Abbey (A)		-	-	-	-	-	-/1/-	1/-/-	-	-	-/-/1/-/-	-	-	-	3
SOM3	Donyatt Potteries (K)		-	-	-	-	-	1/-/-	-	-	-	-	-	-	-	1
SOM4	Glastonbury, Beckery Chapel (A)		-	-	-	-	-	-	-	-/1/-/-/-	-	-	-	-	1	2
SOM5	Ilchester (E)		-	-	-	-	-	1/-/-	-	-	-	-	-	-	-	1
SOM6	Keynsham Abbey (A)		-	-	-	-	-	-	1/-/-	-	-	-/-/1/-/-	-	-	2	4
SOM7	Shapwick (I)		1/-/-	-	-	-	-	-	2/-/-	-	-	-	-	-	-	3
SOM8	Wells Cathedral (B)		-/-/1	-	-	-	-	-/1/-	-	-	-/-/1/-/-	-	-	-	-	3
STF1	Hulton Abbey Place (A)		-	-	-	-	-/1/-	-	1/-/-	-	-	-	-	-	-	2
STF2	Lichfield, Broad Lane (E)		-	-	-	-	2/-/-	1/2/-	-	-	-	-	-	-	-	5
STF3	Tutbury Castle (D)		-	-	-	-	-/1/-	-	-	-	-	-	-	-	-	1
SFK1	Blythburgh Priory (A)		-	-	-	-	-	-	2/-/-	-	-	-	-	-	-	2
SFK2	Dunwich (E)		-/-/2	-/1/2	-/2/5	-/1/2	5/31/69	-/13/44	7/1/10	-/-/1/1/-	-/-/1/2/-	-/-/1/1/-	-	-	13	215
SUR1	Alsted, Nethern Wood, Merstham (G,K)		-	-	-	-	-	-	1/1/-	-	-	-	-	-	1	3
SUR2	Guidford	Castle and Palace (D)	-	-	-	-	2/-/-	2/-/-	1/-/2	-	-/-/1/-/-	-	-	-	-	8
		Blackfriars (A)	-	-	-	-	-	-	-	-	-/-/-/1/1	-/1/-/-/-	-	1/-/- +?	-	5
		Park Manor (G)	-	-	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	1
SUR3	St Mary Merton (A)		-	-	1/-/-	-	1/1/1	1/-/-	1/-/-	1/-/1/-/-	-	-/-/2/-/-	-	1/-/-	2	13
SUR4	Reigate	Town Centre (E)	-	-	-	-	-	-	-	-	-	-	-	1/-/-	-	1
		Miscellaneous (E)	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	1
		Old Vicarage (E)	-	-	-	-/1/-	-	-	-	-	-	-	-	-	1	2
SUR5	Wayneflete Tower (B)		-	-	-	-	-	-	-	-	-	-	-	1/-/-/-/-	1	1
SXE1	Battle Abbey (A)		-	-	-	-	-	-	2/2/-	-/4/3/-/-	1/-/3/2/-	2/-/3/-/-	-	-	5	30
SXE2	Hangleton (I)		-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	1/-/-	-	2
SXE3	Lewes, St James's Hospital (H)		-	-	1/-/-	-	-	-	-	-	-	-	-	-	-	1
SXE4	Pevensey, The Old Farmhouse (E)		-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1

SXE5	Wichelsea (E)		-	-	-	-	-	-	-/1/-	-	-	-	-	1/-/-	1	3
SXW1	Botolphs, Bramber (I)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
WAL1	Llancaiach Fawr, Caerphilly (G)		-	-	-	-	-	-	2/-/-	-	-	-	-	3/-/-	-	5
WAL2	Llanfaes, Anglesey (E)		-	-	-/1/-	2/2/-	173/121/28	24/106/5	51/4/3	-/1/4/1/-	-	-/-/1/-/-	-	-	29	558
WRK1	Bordesley Abbey (A)		-	-	-	-	-	-	2/1/-	-/1/-/-/-	-	-	-	-	1	5
WMD1	Weoley Castle, Birmingham (D)		-	-	-	-	1/-/-	-/1/-	-	-	-	-	-	-	-	2
WLT1	Clarendon Palace (F)		-	-	-	-	-	1/-/-	3/-/-	-	-/-/1/-/-	-	-	2/-/-	3	10
WLT2	Fonthill Gifford (I)		-	-	-	-	-	-	-	-	-	1/2/-/-/-	-	1/-/-	1	8
WLT3	Ludgershall Castle (D)		-	-	-/1/-	-	2/1/-	-	4/1/-	-	-	-/-/1/-/-	-	-/1/-	6	17
WLT4	Market Lavington (I)		-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	1
WLT5	Old Sarum	Cesspool in east suburb (E)	1/-/-	-	-	-	-	-	-	-	-	-	-	-	-	1
		Excavation (E)	-	1/-/-	-	-	-	-	-	-	-	-	-	-	1	2
WLT6	Salisbury	Town (E)	-	-	-	-	-	-	1/-/-	-/-/1/-/-	-	-	-	-	-	2
		Cathedral (B)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
WOR1	Malvern Abbey (A)		-	-	-	-	-	1/-/-	-	1/-/-/-/-	1/-/-/1/-	1/1/-/-/-	1	-	-	7
WOR2	Worcester, Deansway (E)		-	-	-	1/-/-	1/-/-	-	1/1/-	-	-	-	-	4/-/1	-	9
YKE1	Beverley	Lurk Lane (A)	-	2/-/-	-	1/-/1	3/7/2	2/1/-	2/1/2	-/-/1/-/-	-	-	-	?	2	29
		Dominican Priory (A)	-	-	-	-	-	-	2/1/2	-	-	-	-	-	5	10
		33-5 Eastgate (K)	-	-	-	-	-/1/-	-	1/-/-	-	-	-	-	-	-	2
YKE2	Howden, Bishop of Durham's Manor (G)		-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	1	2
YKE3	Kingston-upon-Hull	High Street (E)	-	-	-	-	-	-	1/1/1	-	-	-	-	-	-	3
		Sewer Lane (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	1	2
YKN1	Pontefract Castle, Chapel		-	-	1/-/-	-	-	-	-	-	-	-/-/1/-/-	-	-	1	3
YKN2	St Giles Hospital, Brompton Bridge (H)		-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
YKN3	Wharram, Church of St Martin (C)		-	-	-	-	-/1/-	-	-	-	-	-/-/1/-/-	-	-	-	2
YKN4	York	Aldwark (E)	-	-	-	-	1/-/-	-	4/1/1	-/-/1/-/-	-/-/1/-/-	-/-/1/-/-	-	-	2	12
		The Bedern (E)	-	-	-	-	-	2/3/1	1/13/-/-	-/1/4/-/-	4/-/-	-	-	1/-/-	11	53
		Bedern Chapel (C)	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	-	-	1
		Bishophill Senior (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	1/1/-	-	3

		Clementhorpe (E)	-	-	-	-	-	-	-	-	-	1/-/-/-/-	-	-	-	1
		Coney Street (E)	-	-	-	-	-	-	1/-/-	-	-	-	-	-	-	1
		Coppergate (E)	-	-	-	-	1/-/-	-	-	-	-	-	-	-	-	1
		Paragon Street (E)	-	-	-	-	-	-/1/-	-	-	-	-	-	-	-	1
		Skeldergate (E)	-	-/1/-	-	1/-/2	2/-/-	-	-	-	-	-/-/1/-/-	-	-	2	9
		Tower Street (E)	-	-	-	-	-	-	-	-	-	-/-/1/-/-	-	-	-	1
		Union Terrace (E)	-	-	-	-	-	-	7/-/-	-/1/5/-/-	-/-/1/-/-	-	-	1/-/-	2	17
		Walmgate (E)	-	-	-	-	1/-/-	-	1/-/-	-	-	-	-	1/-/-	2	5
		York Minster (B)	3/-/-	-	-	-	-	-	-	-	-	-	-	-	-	3
YKS1	Doncaster (E)		-	-	-	-	1/2/1	-	1/1/-	-/-/-/1/-	-	-/1/-/-/-	-	-	-	8
YKW1	Kirkstall Abbey (A)		-	-	-	-	3/2/1	-	1/-/-	-	1/-/-/-/-	-	-	-	2	9
YKW2	Sandal Castle (D)		-	-	-	-	-/1/-	-	4/1/-	-/1/-/-/-	4/-/-/-/-	2/-/-/-/-	-	1/-/-	2	14

BIBLIOGRAPHY

BAR	British Archaeological Reports
BMP	British Museum Press
BNJ	British Numismatic Journal
CUP	Cambridge University Press
EcHR	Economic History Review
EH	English Heritage
MedArch	Medieval Archaeology
MoLAS	Museum of London Archaeological Service
NC	Numismatic Chronicle
NCirc	Spink's Numismatic Circular
OUP	Oxford University Press
PATAR	Portable Antiquities and Treasure Annual Report
PSAS	Proceedings of the Society of Antiquaries of Scotland
SCBI	Sylloge of Coins of the British Isles
SCMB	Spink's Coin and Medal Bulletin
TAR	Treasure Annual Report
TBGAS	Transactions of the Bristol and Gloucester Archaeological Society
WANHM	Wiltshire Archaeological and Natural History Magazine

Aarts, J. 2005, 'Coins, money and exchange in the Roman world. A cultural-economic perspective', *Archaeological Dialogues* 12 (1), pp.1-28.

Adams, K. and Robinson, J.P. 2006, 'Thornbury, South Gloucestershire: Medieval silver-gilt iconographic finger-ring fragment', *TAR* 2005-6, p.118.

Alexander, J. and Binski, P. 1987, *Age of Chivalry: Art in Plantagenet England 1200-1400*, Royal Academy of Arts: London.

Allen, D.F. 1951, *British Museum Catalogue of the Cross-and-Crosslets ('Tealby') type of Henry II*, British Museum: London.

Allen, M. 1979, 'The Carlisle and Durham mints in the Short Cross period', *BNJ* 49, pp.42-53.

Allen, M. 1989, 'The provision and use of dies for Short Cross class V', *BNJ* 59, pp.46-76.

Allen, M. 1997, 'A revised arrangement of Short Cross class III and other notes on the Short Cross classification', *SCBI* 48, British Academy: London, pp.59-61.

Allen, M. 2000, 'The volume and composition of the English silver currency, 1279-1351, *BNJ* 70: 38-44.

Allen, M. 2001, 'The Chronology, Mints, and Moneyers of the English Coinage', 1180-1247, in Mass, J.P. *The J.P. Mass Collection of English Short Cross Coins 1180-1247,* SCBI 56, Royal Academy: London, pp.1-12.

Allen, M. 2002, 'English coin hoards 1158-1544', *BNJ* 72, pp.24-84.

Allen, M. 2003, *The Durham Mint*, BNS Special Publication No. 4, Spink: London.

Allen, M. 2004a, 'The Groats of Edward I', *BNJ* 74, pp.28-38.

Allen, M. 2004b, 'The English currency and the commercialization of England before the Black Death', in Wood (ed.) 2004, pp.31-45.

Allen, M. 2005a, 'The quantity of money in England 1180-1247: New data', *BNJ* 75, pp.44-9.
Allen, M. 2005b, 'The interpretation of single-finds of English coins, 1279-1544', *BNJ* 75, pp.50-62.
Allen, M. 2006, 'The volume of the English currency *c.*973-1158', in Cook and Williams 2006, pp.487-523.
Allen, M. 2007a, 'Henry II and the English coinage', in C. Harper-Bill and N. Vincent (eds.), *Henry II. New interpretations,* Boydell: Woodbridge.
Allen, M. 2007b, 'The volume and composition of the English silver currency, 1279-1351', *BNJ* 70, pp.38-44.
Allen, M. 2007c, 'The proportions of the denominations in English mint outputs 1351-1485', *BNJ* 77, pp.190-209.
Allen, M. 2009, 'Henry I Type 14', *BNJ* 79, pp.72-171.
Allen, M. 2010, 'The output and profits of the Calais mint, 1349-1450', *BNJ* 80, pp.131-39.
Allen, M. 2011, 'Silver production and the money supply in England and Wales, 1086-c.1500', *EcHR* 64.1, pp.114-131.
Allen, M. 2012a, *Mints and Money in Medieval England,* Cambridge University Press: Cambridge.
Allen, M. 2012b, 'Mints and money in Norman England', *Anglo-Norman England* XXXIV.
Allen, M. Forthcoming, 'Coin hoards in England and Wales, *c.*973-1544'.
Allen, M. and Doolan, S.P. 2002, 'Finds from Dunwich', *BNJ* 72, pp.85-94.
Anderson, W. 2010, 'Blessing the Fields? A Study of Late-medieval Ampullae from England and Wales', *MedArch* 54, pp.182-203.
Andrew, W.J. 1901, 'A Numismatic History of the Reign of Henry I (1100-1135)', *NC* 4th series 1, pp.1-515.
Andrews, P. and Penn, K. 1999, *Excavations in Thetford, north of the river, 1989-90,* East Anglia Archaeology Report 87: Norwich.
Andrews, P., Mepham, L., Schuster, J. and Stevens, C.J. 2011, *Settling the Ebbsfleet Valley CTRL Excavations at Springhead and Northfleet, Kent: The Late Iron Age, Roman, Saxon, and Medieval Landscape, Volume 4: Post-Roman Finds and Environmental Reports*. Oxford Wessex Archaeology: Salisbury.
Antoine, E. 2005, 'A Thirteenth-century Signet Ring and its Inscriptions: Between Identity and Power, Magic and Prophylaxis' (trans. R. Bork), in R. Bork (ed.), *De Re Metallica. The Uses of Metal in the Middle Ages*, Ashgate: Aldershot, pp.101-111.
Archibald, M.M. 1967, 'Fishpool, Blidworth (Notts.), 1966 hoard interim report', *NC* 130, pp.133-46.
Archibald, M.M. 1971, 'The Mayfield (Sussex) 1968 hoard of English pence and French gros, *c.*1307', in R.A.G. Carson (ed.), *Mints, Dies and Currency. Essays dedicated to the memory of Albert Baldwin*, Routledge: London, pp.151-9.
Archibald. M.M. 1979a, 'The coins, counters and a token', in J.H. Williams, *St Peter's Street, Northampton, Excavations 1973*-1976, Northampton.
Archibald. M.M. 1979b, 'Coins and counters', in F. Williams 'Excavations on Marefair', *Northamptonshire Archaeology* 14, p.69.
Archibald. M.M. 1982, 'The coins', in J.H. Williams and M. Shaw, 'Excavations in Chalk Lane, Northampton 1957-8', *Northamptonshire Archaeology* 16, p.116.

Archibald, M.M. 1984, 'Coins' in G. Zarnecki, J. Holt and T. Holland (eds.), *English Romanesque Art 1066-1200,* Weidenfeld and Nicholson: London, pp.320-341.
Archibald, M.M. 1985, 'Coins and Jettons', in J.N. Hare, *Battle Abbey: The Eastern Range and the Excavations of 1978-80,* Historic Buildings and Monuments Commission for England: London, pp.178-82.
Archibald. M.M. 1987, 'The medieval and some post-medieval coins and tokens', in N. Crummy (ed.), *Colchester Archaeological Report 4: The coins from excavations in Colchester 1971-9,* Colchester, pp.65-7.
Archibald, M.M. 1988, 'English medieval coins as dating evidence, in J. Casey, and R. Reece (eds.), *Coins and the Archaeologist* (second edition), Seaby: London, pp.264-301.
Archibald, M.M. 1991a, 'Against the tide: coin-movement from Scandinavia to the British Isles in the Viking Age', *NNF-NYTT* N.R. 1, pp.19-22.
Archibald, M.M. 1991b, 'Dating Stephen's first type', *BNJ* 61, pp.9-22.
Archibald, M.M. 1993, 'Skandinavisk Ethelred-imitation funnen i England', *Svensk Numismatisk Tidskrift* 6, pp.148-150.
Archibald. M.M. 1995, 'The medieval coins', in K. Blockley *et al*, *Excavations in the Marlowe car park and surrounding areas, Part II: The Finds,* Canterbury, pp.950-1.
Archibald, M.M. 2001, 'The Lion coinage of Robert Earl of Gloucester and William Earl of Gloucester', *BNJ* 71, pp.71-86.
Archibald, M.M. 2003, 'Early Medieval Coinage (1066-1279)', *BNJ* 73, pp.76-88.
Archibald, M.M. 2009, 'An 11th century Spanish gold coin found at Denham and its English context', unpublished paper, XIV International Numismatic Congress 2009.
Archibald, M.M. unpublished coin report in BM
Archibald, M.M. and Cook, B.J. 2001, *English Medieval Coin Hoards I: Cross and Crosslets, Short Cross and Long Cross Hoards*, London, British Museum Occasional Paper 87: London.
Archibald, M.M., Lang, J.R.S. and Milne, G. 1995, 'Four early medieval dies from the London waterfront', *NC* 155, pp.163-200.
Ashley, S.J. 2001, 'Narborough, Norfolk: Medieval gold finger-ring', *TAR*, pp.62.
Ashley, S.J., Marsden, A. and Cook, B.J. 2004, 'Stoke Holy Cross, Norfolk: Five medieval coins and two finger rings', *TAR,* pp.110.
Baker, A.R.H. 1976, 'Changes in the later Middle Ages', in Darby, H.C. (ed.), *A New Historical Geography of England before 1600,* Cambridge University Press: Cambridge, pp.186-247.
Baker, J. 2002, *Coinage, Monetary Policy and Monetary Economy in Greece, 1204-ca 1350*, Unpublished PhD thesis, University of Birmingham.
Barclay, C. 1995, 'The Ryther Treasure Trove', *BNJ* 65, pp.
Bartlett, R. 2002, *England under the Norman and Angevin Kings, 1075-1225,* Oxford University Press: Oxford.
Bartlett, R. 2004, *The Hanged Man. A Story of Miracle, Memory and Colonialism in the Middle Ages,* Princeton University Press: Princeton.
Bateson, J.D. 1989, 'Roman and Medieval coins found in Scotland to 1987', *PSAS* 119, pp.165-188.
Bateson, D. 1997, *Coinage in Scotland*, Spink: London.
Bateson, J.D. and Holmes, N.M.McQ. 1997, 'Roman and medieval coins found in Scotland 1988-1995', *PSAS* 127, pp.527-61.

Bateson, J.D. and Holmes, N.M.McQ. 2003, 'Roman and medieval coins found in Scotland 1996-2000', *PSAS* 133, pp.245-276.
Bean, S. 2007, Coins and Tokens: pre-Roman to post-medieval, in Griffiths, D., Philpott, R.A. and Egan, G., *Meols. The Archaeology of the North Wirral Coast*, University of Oxford, pp.295-350.
Bendall, S. 1988, *A Private Collection of Palaeologan Coins*, Privately printed: Wolverhampton.
Besly, E. 1995, 'Short Cross and other medieval coins from Llanfaes, Anglesey', *BNJ* 65, pp.46-82.
Besly, E. 2002, 'Abergavenny area, Monmouthshire, Wales: 199 Anglo-Saxon and Norman pennies', *TAR,* 139-40.
Besly, E. 2006, 'Few and far between: mints and coins in Wales to the middle of the thirteenth century', in Cook and Williams (eds.), pp.701-719.
Bevan, A. 2012, 'Spatial methods for analysing large-scale artefact inventories', *Antiquity* 86, pp.492-506.
Biddle, M. 1964. Excavations at Winchester: Second Interim Report. *AntJ* 44: 188-219.
Biddle, M. (ed) 1976, *Winchester in the Early Middle Ages. An Edition and Discussion of The Winton Domesday*, Winchester Studies 1. Clarendon Press: Oxford.
Biddle, M. 1990, *Artefacts from Medieval Winchester*, Object and Economy in Medieval Winchester, Winchester Studies 7.ii, Clarendon: Oxford.
Biddle, M. (ed.) 2012, *The Winchester Mint: and Coins and Related Finds from the Excavations of 1961-71,* Winchester Studies 8, Oxford University Press: Oxford.
Blackburn, M. 1989, 'What factors govern the number of coins found on an archaeological site?', in H. Clarke and E. Schia, *Coins and Archaeology, MARG Proceedings of the 1st meeting at Isegran, Norway*, BAR International Series 556: Oxford, pp.15-24.
Blackburn, M. 1991, 'Coinage and currency under Henry I: a review', in M. Chibnall (ed.) *Anglo-Norman Studies* XIII, Proceedings of the Battle Conference 1990, Boydell: Woodbridge, 49-81.
Blackburn, M. 1994, 'Coinage and currency', in E. King (ed.) *The Anarchy of King Stephen's Reign*, Oxford, pp.145-203.
Blackburn, M. 2001, 'Grendon, Northants, England, 2000', *NC* 161, pp.352-3.
Blackburn, M. 2003, ''Productive' sites and the pattern of coin loss in England, 600-1180', in T. Pestell and K, Ulmschneider (eds.), *Markets in Early Medieval Europe: Trading and 'Productive' sites, 650-850*, Windgather: Macclesfield, pp.20-36.
Blackburn, M. 2007, 'Gold in England During the 'Age of Silver' (Eighth-Eleventh Centuries)', in J. Graham-Campbell and G. Williams (eds.), *Silver Economy in the Viking Age*, Walnut Creek, CA, pp.55-98.
Blackburn, M. and Mann, J. 1995, 'A late Anglo-Saxon coin die from Flaxengate, Lincoln', *NC* 155, pp.201-8.
Bland, R. 1998, 'The Treasure Act and the proposal for the voluntary recording of all archaeological finds', *Museums in the Landscape: Bridging the Gap*, Society of Museum Archaeologists, The Museum Archaeologist Volume 23 Conference Proceedings: St Albans 1996, pp.3-19.

Bland, R. 2008, 'The Development and Future of the Treasure Act and Portable Antiquities Scheme', in S. Thomas & P.G. Stone (eds.), *Metal Detecting and Archaeology,* The Boydell Press: Woodbridge, pp.63-85.
Bland, R. and Loriot, X. 2010, *Roman and Early Byzantine Gold Coins found in Britain and Ireland*, RNS Special Publication No. 46: London.
Bloch, M. 1973, *The royal touch: sacred monarchy and scrofula in England and France*, Routledge and Kegan Paul: London.
Blockley, K., Blockley, M., Blockley, P., Frere, S.S. and Stow, S. 1995, *The Archaeology of Canterbury, Vol. V, Excavations in the Marlowe Car Park and Surrounding Areas. Part II: The Finds,* Canterbury Archaeological Trust: Canterbury.
Blunt, C.E. and Dolley, M. 1968, 'A gold coin of the time of Offa', *NC* 7th series 8, 151-60.
Blunt, C.E. and Pagan, H. 1963, 'An early nineteenth-century discovery of Edward pennies at Knaresborough Priory', *BNJ* 32, pp.117-26.
(1963), 117-2 Blunt, C.E. and Whitton, C.A. 1945-8, 'The coinage of Edward IV and Henry VI restored', *BNJ* 25, pp.4, 130, 291.
Bodden, M.C. 1988, 'Evidence for knowledge of Greek in Anglo-Saxon England', *Anglo-Saxon England* 17, pp.217-246.
Bogucki, P. 2002, *Fragmentation in Archaeology. People, places and broken objects in the prehistory of south-eastern Europe* by J. Chapman, Reviewed in *American Antiquity,*Vol 67, No. 3, pp.583-5.
Bolton, J.[L.] 2004, 'What is money? What is a money economy? When did a money economy emerge in medieval England? In Wood (ed.) 2004, pp.1-15.
Bolton, J.L. 2012, *Money in the Medieval English Economy: 973-1489,* Manchester University Press: Manchester.
Bond, J. 2000, 'Great sites: Wharram Percy', *British Archaeology* 52. http://www.archaeologyuk.org/ba/ba52/ba52feat.html
Bond, J. 2007, 'Medieval Charcoal-burning in England', in J. Klápště and P. Sommer (eds.), *Arts and Crafts in Medieval Rural Environment*, Ruralia VI 22-29 Sept 2005. Dobogókő, Hungary, pp.277-94.
Boon, G.C. 1986, *Welsh hoards 1979-1981*, National Museum of Wales: Cardiff.
Boon, G.C. 1991, 'Byzantine and other exotic bronze coins from Exeter', in N. Holbrook, and P.T. Bidwell, *Roman Finds from Exeter,* Exeter Archaeological Reports 4, pp.38-45.
Brand, J.D. 1964, 'Some Short Cross questions', *BNJ* 33, pp.57-69.
Brindle, T. 2011, *Analysis of Roman Rural Landscapes in Britain Comparing PAS and HER data,* Unpublished PhD thesis, King's College London.
Britnell, R.H. 1995, 'Commercialisation and economic development in England, 1000-1300', in Britnell, R.H. and Campbell, B.M.S. (eds.), *A Commercialising Economy. England 1086 to c. 1300,* Manchester University Press: Manchester, pp.7-30.
Britnell, R.H. 1996, *The Commercialisation of English Society 1000-1500,* Manchester University Press.
Britnell, R.[H.] 2004a, *Britain and Ireland 1050-1530. Economy and Society,* Oxford University Press: Oxford.
Britnell, R.[H.] 2004b, 'Uses of money in medieval Britain', in Wood (ed.) 2004, pp.16-30.
Brooke, G.C. 1916, *A Catalogue of English Coins in the British Museum. The Norman Kings,* in two volumes, British Museum: London.

Brooke, G.C. 1927, 'Halsall Treasure Trove', *NC* 5th series 7, p.279.
Brown, R.A (ed.). 1964, *Pipe Roll 17 John*, Pipe Roll Society: London.
Buckland, P.C. and Magilton, J.R. 1989, *The Archaeology of Doncaster 2. The Medieval and Later Town*. BAR British Series 202(ii): Oxford.
Burns, E. 1887, *The Coinage of Scotland,* 3 vols., A. & C. Black: Edinburgh.
Butcher, K. 2003, *Small Change in Ancient Beirut. The Coin Finds from BEY 006 and BEY 045: Persian, Hellenistic, Roman, and Byzantine Periods*, Archaeology of the Beirut Souks, AUB and ACRE Excavations in Beirut, 1994-1996, 1 Berytus XLV-XLVI (2001-2002), American University of Beirut: Beirut.
Campbell, B.M.S. 2008, 'Benchmarking medieval economic development: England, Wales, Scotland and Ireland, *c.*1290', *EcHR* 61, pp.896-945.
Carlyon-Britton, P.W.P. 1905, 'A numismatic history of the reigns of William I and II (1066-1100)', *BNJ* 2: pp.87-184.
Carpenter, D.A. 1986, 'The gold treasure of King Henry III', in P.R. Cross and S.D. Lloyd (eds.), *Thirteenth Century England I. Proceedings of the Newcastle upon Tyne Conference, 1985,* Woodbridge, pp.61-88.
Carpenter, D.A. 1987, 'Gold and gold coins in England in the mid-thirteenth century', *NC* 147, pp.106-13.
Casey, J. 1986, *Understanding Ancient Coins*, Batsford: London.
Casey, J. and Reece, R. (eds.) 1988, *Coins and the Archaeologist* (second edition), Seaby: London.
Cavill, P.R. 2007, 'The debased coinage of 1492', *BNJ* 77, pp.283-5.
Chapman, J. 2000, *Fragmentation in Archaeology. People, places and broken objects in the prehistory of south-eastern Europe*, London and New York: Routledge.
Chapman, J. C. & Gaydarska, B. I. 2007, *Parts and wholes. Fragmentation in prehistoric context,* Oxbow Books: Oxford.
Chester-Kadwell, M. 2009, *Early Anglo-Saxon Communities in the Landscape of Norfolk: Cemeteries and Metal-Detector Finds in Context*, BAR 481: Oxford.
Cherry, J. 1969, 'A ring-brooch from Waterlooville, Hants', *MedArch* 13, pp.224-6.
Cherry, J. 1991a, 'Rings', in Saunders and Saunders (eds.), pp.40-6.
Cherry, J. 1991b, 'The ring of Bishop Grandison', in F. Kelly (ed.), *Medieval Art and Architecture at Exeter Cathedral,* British Archaeological Association: Exeter, pp.205-8.
Cherry, J. 1992a, 'The breaking of seals', *Medieval Europe 1992: Art and Symbolism.* Pre-printed papers 7, Medieval Europe: York, pp.23-7.
Cherry, J. 1992b, *Goldsmiths*, British Museum Press: London.
Cherry, J. 1994, *The Middleham Jewel and Ring*, Yorkshire Museum: York.
Cherry, J. 2001, 'Healing through faith: the continuation of medieval attitudes to jewellery into the Renaissance', *Renaissance Studies* vol. 15 No.2, pp.154-71.
Cherry, J. 2002, 'The breaking of seals', in M. Andersen and G. Tegnér, *Middelalderlige seglstamper i Norden,* Roskilde Museums Forlag: Roskilde.
Cherry, J. 2003, 'Dress and Adornment', in R. Marks, and P. Williamson (eds.), *Gothic: Art for England 1400-1547,* V&A Publications: London, pp.326-333.
Chester-Kadwell, M. 2009, *Early Anglo-Saxon Communities in the Landscape of Norfolk,* BAR British Series 481: Oxford.

Childs, W.R. 1995a, 'Anglo-Spanish trade in the Later Middle Ages: twelfth to sixteenth centuries', in Gerrard, Gutiérrez and Vince (eds.), pp. 17-23.
Childs, W.R. 1995b, 'Documentary evidence for the import of Spanish pottery to England in the Later Middle Ages (thirteenth to early sixteenth centuries)', in Gerrard, Gutiérrez and Vince (eds.), pp.25-31.
Churchill, R. and Thomas, B. 2012, *The Brussels Hoard of 1908, the Long Cross Coinage of Henry III*, BNS Special Publication 9: London.
Clarke, H. and Schia, E., *Coins and Archaeology, MARG Proceedings of the 1st meeting at Isegran, Norway*, BAR International Series 556: Oxford.
Claughton, P. 2003, 'Production and economic impact: Northern Pennine (English) silver in the 12th century', in *Proceedings of the 6th International Mining History Congress, September 2003, Akabira City, Hokkaido, Japan*: 146-9.
Cleere, H. and Crossley, D. 1995, *The Iron Industry of the Weald*, Merton Priory Press: Cardiff.
Conte, W.J. and Archibald, M.M. 1989, 'Five round halfpennies of Henry I. A further case for reappraisal of the chronology of types', *NCirc* 97, pp.115-6.
Cook, B.J. 1994a, 'Recent Tudor hoards', *BNJ* 64, pp.70-83.
Cook, B.J. 1999a, 'Foreign Coins in Medieval England', in L. Travaini (ed.), *Local Coins, Foreign Coins: Italy and Europe 11th-15th centuries,* Proceedings of the Second Cambridge Numismatic Symposium: Milan, ppp-ppp.
Cook, B.J. 1999b, 'The Bezant in Angevin England', *NC* 159, pp.255-75.
Cook, B.J. 2000, 'Coining dies in late medieval England with a catalogue of the British Museum collection', *NC* 160, pp.219-47.
Cook, B.J. 2001a, 'Crimes against the currency in twelfth- and thirteenth-century England', in P.D. Clarke, Owens's Historical Essays in Honour of Professor Jeffrey H. Denton, published as *Bulletin of the John Rylands University Library of Manchester* 83, No. 4, pp.51-70.
Cook, B.J. 2001b, 'The afterlife of a coinage: the Lancastrian salut in England and elsewhere', *NC* 161: 302-7.
Cook, B.J. 2006, '*En Monnaie Aiant Cours',* in Cook and Williams (eds.), pp.617-686.
Cook, B.J. 2007, 'Baschurch area, Shropshire: 190 silver pennies, *TAR,* p.199.
Cook, B.J. 2008a, 'Medieval coins excavated at the Tower of London', *NC* 168, pp.233-240.
Cook, B.J. 2008b, 'Two new coin brooches of Tournois type', *BNJ* 78, pp.236-239.
Cook, B.J. forthcoming, 'England's Silver Age: new and old hoards from England under the three Edwards (*c.*1279-1351)'.
Cook, B.J. with Carey, R. and Leahy, K. 1998, 'Medieval and Early Modern Coin Finds from South Ferriby, Humberside', *BNJ* 68, pp.95-118.
Cook, B. and Williams, G. (eds.) 2006, *Coinage and History in the North Sea World c.500-1250. Essays in Honour of Marion Archibald*, Brill: Leiden.
Cooper, D.R. 1988, *The Art and Craft of Coinmaking*, London.
Crafter, T.C.R. 1998, 'A re-examination of the classification and chronology of the Cross-and-Crosslets type of Henry II', *BNJ* 68, pp.42-63.
Crafter T.C.R., 2008, *Monetary Expansion in Britain in the Late Twelfth Century* (unpublished D.Phil. thesis, Oxford University).

Cramp, R., Bettess, G. & Bettess, F. 2006, *Wearmouth and Jarrow Monastic Sites* In two Volumes, English Heritage: Swindon.
Creighton, J.D. 1992, *The Circulation of money in Roman Britain from the First to Third century*, Unpublished PhD thesis, University of Durham.
Creighton, J. 2000, *Coins and Power in Late Iron Age Britain*, Cambridge University Press: Cambridge.
Creighton, J. 2005, 'Gold, ritual and kingship', in Wigg-Wolf, D. and Haselgrove, C.C. (eds.), *Iron Age Coinage and Ritual Practices*, Verlag Philipp von Zabern: Mainz am Rhein, pp.69-84.
Crossley, D.W. (ed.) 1981, *Medieval Industry*, CBA Research Report 40: York.
Crossley, D.W. 1981, 'Medieval iron smelting', in Crossley (ed.), pp.29-41.
Crump, C.G. and Johnson, C. 1902. TITLE
Curtis, T. 1989, 'CONST.X ON LUND? A Byzantine coin with a London provenance', *NCirc* May 1989, pp.116.
Dallas, C. & Sherlock, D. 2002, *Baconsthorpe Castle, Excavations and Finds 1951-1972*. East Anglia Archaeology Report No. 102: Norwich.
Dannenberg, H. 1876, *Die Deutschen Münzen der Sächsischen und Fränkischen Kaiserzei,* Weidmannsche Buchhandlung: Berlin.
Darby, H.C., Glasscock, R.E., Sheail, J. and Versey, G.R. 1979, 'The changing geographical distribution of wealth in England: 1086-1334-1525', *Journal of Historical Geography* 5, pp.247-62.
Darch, E. 2006, 'Alby Area, Norfolk: Medieval gold circular brooch', *TAR,* pp.106.
Dark, K. 2001, *Byzantine Pottery*, Tempus: Stroud.
Davies, J.A. 2004, 'Coins, jettons and tokens', in H. Wallis, *Excavations at Mill Lane, Thetford, 1995,* East Anglian Archaeological Report 108, Norwich, pp.33-7.
Dawes and Magilton 1980: 15
Daubney, A. 2009, 'The circulation and prohibition of Venetian soldini in late medieval England', *BNJ* 79, pp.186-98.
Deevy, M. 1997, 'Jewellery, art and symbolism in Medieval Irish society', in G. De Boe and F. Verhaeghe (eds.), *Art and Symbolism in Medieval Europe – Papers of the 'Medieval Europe Brugge 1997' Conference – Volume 5*, Institute for the Archaeological Heritage: Zellik, pp.73-81.
Deevy, M. 1998, *Medieval Ring Brooches in Ireland,* Wordwell Ltd: Co. Wicklow.
Dobinson, C. and Denison, S. 1995, *Metal Detecting and Archaeology in England*, English Heritage: London.
Dodd, A. (ed.) 2003, *Oxford before the University. The late Saxon and Norman archaeology of the Thames crossing, the defences and the town*, Thames Valley Research Monograph 17, Oxford.
Dolley, R.H.M. 1955a, 'The Dover hoard: the first English hoard with groats of Edward I', *BNJ* 28, pp.147-68.
Dolley, R.H.M. 1955b, 'The Stockbridge Down find of Anglo-Saxon coins', *BNJ* 28, pp.283-7.
Dolley, M. 1966, *The Norman Conquest and the English Coinage*, Spink: London.
Dolley, M. 1975, 'The coins and jettons', in Platt, C. and Coleman-Smith, R. *Excavations in Medieval Southampton 1953-69, Vol. 2 The Finds*, Leicester, pp.315-31.
Dolley, M. 1979, 'Roger of Wendover's date for Eadgar's coinage reform', *BNJ* 59, pp.1-11.

Dolley, R.H.M. and Pagan, H. 1963, 'An early nineteenth-century discovery of Edward pennies at Knaresborough Priory', *BNJ* 32, pp.117-26.
Donkin, R.A. 1976, 'Changes in the early Middle Ages', in Darby, H.C. (ed.), *A New Historical Geography of England before 1600,* Cambridge University Press: Cambridge, pp.75-135.
Duffy, E. 1992, *The Stripping of the Altars: Traditional Religion in England c.1400-c.1580*, Yale University Press: New Haven and London.
Duplessy, J. 1956, 'La circulation des monnaies Arabes en Europe occidentale du VIII^{e} au XIII^{e} siècle', *Revue Numismatique*, xviii. Pps.
Dyer, C. 1989, *Standards of Living in the Later Middle Ages: Social Change in England c. 1200-1520,*, Cambridge University Press: Cambridge.
Dyer, C. 1997, 'Peasants and Coins: the uses of money in the middle ages', *BNJ* 57, pp.31-47.
Dykes, D.W. 1963, 'The Irish coinage of Henry III', *BNJ* 32: 99-116.
Eagleton, C. and Williams, J. 2007, *Money. A History (second edition)*, British Museum Press: London.
Egan, G. 2007, 'Byzantium in London? New Archaeological Evidence for 11th Century Links between England and the Byzantine World', in M. Gruenbart, E .Kislinger and A. Muthesius (eds.), *Material Culture and Well-Being in Byzantium, (400-1453)* Proceedings of the International Conference, (Cambridge, 8-10 September 2001), Verlag der Österreichischen Akademie der Wissenschaften: Wien, pp.111-117.
Egan, G. 2009, 'Material Concerns: Non-ceramic finds *c*.1050-1500', in R. Gilchrist and A. Reynolds (eds.), *Reflections: 50 Years of Medieval Archaeology,* Society for Medieval Archaeology Monograph 30, Maney: Leeds, pp.385–408.
Egan, G. and Pritchard, F. 2002, *Dress Accessories c1150-1450. Medieval Finds from Excavation in London: 3,* Boydell: Woodbridge.
Elias, E.R.D. 1984, *The Anglo-Gallic Coins*, Spink, London.
Ettlinger, E. 1939, 'British Amulets in London Museums', *Folklore* Vol. 50 No. 2, pp.148-175.
Evans, D.H. 2010, 'A good riddance of bad rubbish? Scatological musings on rubbish disposal and the handling of 'filth' in medieval and early post-medieval towns', in K. De Groote, D. Tys and M. Pieters (eds.), *Exchanging Medieval Material Culture. Studies on archaeology and history presented to Frans Verhaeghe,* Relicta Monografieën 4, Flemish Heritage Institute: Brussels, pp.267-78.
Evans D.H. and Jarrett, M.G. 1987, 'The deserted village of West Whelpington, Northumberland: Third report part one', *Archaeologia Aeliana*, fifth series, vol. XV, pp.254-55.
Evans, J. 1864, *The Coins of the Ancient Britons,* London.
Evans, J. 1922, *Magical Jewels of the Middle Ages and the Renaissance particularly in England*, Clarendon Press, Oxford.
Evans, J. and Serjeantson, M.S. 1933, *English Medieval Lapidaries*, Early English Text Society Original Series No. 190, Clarendon Press, Oxford.
Fairbairn, H. 2008, *A Study of the Political and Economic Implications of the Coinage during the Civil War of King Stephen's Reign,* unpublished MA dissertation, King's College, London.

Fairbrother, J.R. 1991, *Faccombe Netherton: excavations of a Saxon and medieval manorial complex,* in two volumes, British Museum Press, London.
Farquhar, H. 1921-2, 'Royal Charities. Part I – Angels as healing-pieces for the King's Evil', *BNJ* 16, pp.195-228.
Fasham, P.J. and Keevill, G. with Coe, D. 1995, *Brighton Hill South (Hatch Warren): An Iron Age Farmstead and DMV in Hampshire*, Wessex Arch Rep No. 7: Salisbury.
Ferguson, G. 1955, *Signs and Symbols in Christian Art (second edition)*, Zwemmer: London.
Finucane, R.C. 1977, *Miracles and Pilgrims: popular belief in medieval England*, Book Club Associates: London.
Framework Archaeology. 2010, *Landscape Evolution in the Middle Thames Valley: Heathrow Terminal 5 Excavations, volume 2*, Wessex Archaeology: Salisbury.
Freeman, M. 1996, *Further Excavations at the Dominican Priory, Beverley, 1986-9*, Sheffield Excavation Report 4: Sheffield, pp.173-5.
Fox, H.B.E. and Fox, S. 1909, 'Numismatic history of the reigns of Edward I, II and III [Part 1], *BNJ* 6: pp.197-212.
Fox, H.B.E. and Fox, S. 1910, 'Numismatic history of the reigns of Edward I, II and III [Part 2], *BNJ* 7: pp.91-142.
Fox, H.B.E. and Shirley-Fox, J.S. 1911, 'Numismatic history of the reigns of Edward I, II and III [Part 3], *BNJ* 8: pp.137-48.
Fox, H.B.E. and Shirley-Fox, J.S. 1912, 'Numismatic history of the reigns of Edward I, II and III [Part 4], *BNJ* 9: pp.181-206.
Fox, H.B.E. and Shirley-Fox, J.S. 1913, 'Numismatic history of the reigns of Edward I, II and III [Part 5], *BNJ* 10: pp.95-123.
Frere, S. *et al.* 1983, *Excavations on the Roman and Medieval Defences of Canterbury,* Maidstone.
Frere, S. *et al.* 1984, *Excavations in the St George's Street and Burgate Street Areas,* Maidstone.
Frere, S. *et al.* 1987, *Canterbury Excavations: Intra-and Extra-Mural Sites,* Maidstone.
Friel, I. 2003, *Maritime History of Britain and Ireland, c.400-2001*, British Museum Press: London.
Gannon, A. and Williams, G. 2001, 'Two small hoards of William I', *BNJ* 71, pp.162-4.
Garrow, D. and Gosden, C. 2012, *Technologies of Enchantment? Exploring Celtic Art 400 BC to AD 100*, Oxford University Press: Oxford.
Garrow, D., Lucy, S. and Gibson, D. 2006, *Excavations at Kilverstone, Norfolk: an Episodic Landscape History*, EAA Report 113: Norwich.
Gazin-Schwartz, A. 2001, 'Archaeology and Folklore of Material Culture, Ritual, and Everyday Life', *International Journal of Historical Archaeology,* vol. 5, No. 4, pp.263-80.
Gerrard, C. 2003, *Medieval Archaeology. Understanding traditions and contemporary approaches,* Routledge: London.
Gerrard, C. 2007, 'Not All Archaeology is Rubbish: the Elusive Life Histories of Three Artefacts from Shapwick, Somerset', in Costen, M. (ed.), *People and Places: essays in honour of Mick Aston*, Oxbow Books: Oxford, pp.166-80.

Gerrard, C. 2009, 'Tribes and territories, people and places', in R. Gilchrist and A, Reynolds (eds.), *Reflections: 50 Years of Medieval Archaeology, 1957-2007*, Society for Medieval Archaeology Monograph 30, Maney: Leeds, pp.79-112.
Gerrard, C. with Aston, M. 2007, *The Shapwick Project, Somerset. A Rural Landscape Explored*, Society for Medieval Archaeology Monograph 25, Maney: Leeds.
Ghyssens, J. 1971, *Les Petit Deniers de Flandre des XII et XIII siècles,* Brussels.
Gilchrist, R. 2008, 'Magic for the Dead? The Archaeology of Magic in Later Medieval Burials', *MedArch* 52, pp.119-159.
Gilchrist, R. 2009, 'Medieval archaeology and theory: a disciplinary leap of faith', in R. Gilchrist and A, Reynolds (eds.), *Reflections: 50 Years of Medieval Archaeology, 1957-2007*, Society for Medieval Archaeology Monograph 30, Maney: Leeds, pp.385-408.
Gilchrist, R. and Sloane, B. 2005, *Requiem: The Medieval Monastic Cemetery in Britain*. MoLAS: London.
Gillings, M. and Pollard, J. 1999, 'Non-Portable Stone Artifacts and Contexts of Meaning: The Tale of Grey Wether', *World Archaeology*: Vol. 31, No.2, pp.179-193.
Glasscock, R.E. 1976, 'England *circa* 1334', in Darby, H.C. (ed.), *A New Historical Geography of England before 1600,* Cambridge University Press: Cambridge, pp.75-135.
Glick, T.F., Livesey, S. and Wallis, F. 2005, *Medieval Science, Technology and Medicine: An Encyclopedia*, Routledge: London and New York.
Gosden, C. and Marshall, Y. 1999, 'The Cultural Biography of Objects', *World Archaeology*: Vol. 31, No.2 The Cultural Biography of Objects, pp.169-178.
Graham, A.H. and Davies, S. 1993, *Excavations in the Town Centre of Trowbridge, 1977 and 1986-88*, Wessex Archaeology Report no. 2: Salisbury.
Graham-Campbell, J. 1982, *The Anglo-Saxons,* Penguin: London.
Grainger, I., Hawkins, D., Cowal, L. and Mikulski, R. 2008, *The Black Death cemetery, East Smithfield, London,* MoLAS: London.
Gregory, T. and Rogerson, A.J.G. 1984, 'Metal-detecting in archaeological excavation', *Antiquity* LVIII, pp.179-84.
Grierson, P. 1951, 'Oboli de Musc', *HER* Vol. 66, No. 258, pp.75-81.
Grierson, P. 1956, 'The Salernitan coinage of Gisulf II (1052-1077) and Robert Guiscard (1077-1085)', *Papers of the British School at Rome,* 24, pp.37-59.
Grierson, P. 1966, 'Harold Hardrada and Byzantine coin types in Denmark', *Byzantinische Forschungen* I, pp.124-38.
Grierson, P. 1972, 'Notes on early Tudor coinage 1. King Henry VII's dandyprats', *BNJ* 41, pp.80-94.
Grierson, P. 1974, 'Muslim coins in 13th-century England', in D.K. Kouymjian (ed.), *Near Eastern Numismatics. Studies in Honour of G.S. Miles*, Beirut, pp.387-91.
Grierson, P. 1975, *Numismatics*, OUP: London.
Grierson, P. 1991, *Coins of Medieval Europe*, Spink: London.
Grinder-Hansen, P. 1997, *Margrete I Regent of the North: The Kalmar Union 600 Years Essays and Catalogue,* Danmarks Nationalmuseum: Copenhagen.
Grinsell, L.V. 1961, 'The Breaking of Objects as a Funerary Rite', *Folklore* 72, No. 3, pp.475-91.
Guest, P. and Wells, N. 2007a, *Iron Age & Roman Coins from Wales,* Moneta: Wetteren.

Guest, P. and Wells, N. 2007b, *Iron Age and Roman Coins from Wales*. [data-set]. York: Archaeology Data Service [distributor] (doi:10.5284/1000263).
Guest, P. 2008, 'The Early Monetary History of Roman Wales: Identity, Conquest and Acculturation on the Imperial Fringe', *Britannia* XXXVIIII, pp.33-58.
Haldenby, D. and Richards, J.D. 2010, 'Charting the effects of plough damage using metal-detected assemblages', *Antiquity* 84, pp.1151-1132.
Hall, M.A. 2012, 'Money isn't everything: The cultural life of coins in the medieval burgh of Perth, Scotland', *Journal of Social Archaeology* 12 (1), pp.72-91.
Hammarberg, I., Malmer, B. and Zachrisson, T. 1989, *Byzantine Coins found in Sweden*, Commentationes de nummis saeocolorum IX-XI in Suecia repertis, Nova series 2, Spink: London.
Hamerow, H. 2006, 'Special Deposits' in Anglo-Saxon Settlements', *MedArch* 50, pp.1-30.
Hancox, E.R.H. 1908, 'Finds of mediaeval cut halfpence and farthings at Dunwich', *BNJ* 5, pp.123-34.
Harpin, D. 2012, 'Late medieval coin brooches', in T. Abramson (ed.), *Yorkshire Numismatist* 4, York, pp.201-214.
Haselgrove, C. 1987, *Iron Age coinage in South-East England: the archaeological context*, British Archaeological Reports 174: Oxford.
Haselgrove, C. 1993. The development of British Iron-Age coinage, *NC* 153, pp.31-63.
Haselgrove, C.C., Ferrell, G. And Turnbull, P. 1988, *The Durham Archaeological Survey*, University of Durham Occasional Paper 2: Durham.
Haselgrove, C. and Krmnicek, S. 2012, 'The Archaeology of Money', *Annual Review of Anthropology* 41, pp.235-50.
Hatcher, J. 1976, *Plague, Population and the English Economy, 1348-1530,* Economic History Society: London and Basingstoke.
Hinde, A. 2003, *England's Population. A History Since the Domesday Survey,* Hodder Arnold: London.
Hinton, D.A. 2005, *Gold & Gilt, Pots & Pins: Possessions and People in Medieval Britain*, OUP: Oxford.
Hobbs, R. 2006, *Late Roman Precious metal deposits, AD200-700: changes over time and space,* BAR International Series 1504: Oxford.
Holmes, N. M. McQ. 2004, 'The evidence of finds for the circulation and use of coins in medieval Scotland', *PSAS* 134, pp.241-80.
Howlett, R. 1884-9, 'Historia Rerum Anglicarum by William of Newburgh', in *Chronicles of the Reigns of Stephen, Henry II and Richard I*, vol. i Royal Society.
Ivens, R, Busby, P. and Shepherd, N. 1995, *Tattenhoe and Westbury: Two Deserted Medieval Settlements*, Milton Keynes Buckinghamshire Archaeological Society Monograph no. 8, Buckinghamshire Archaeological Society: Aylesbury.
Joy, J. 2009, 'Reinvigorating object biography: reproducing the drama of object lives', *World Archaeology,* Vol 41, No. 4, pp.540-556.
Keene, D.J. 1982, 'Rubbish in medieval towns', in A.R. Hall and H.K. Kenward (eds.), *Environmental Archaeology in the Urban Context*, CBA Research Report 43. London, pp.26-30.
Kelleher, R. 2007, 'Gold is the strength, the sinnewes of the world': continental gold and Tudor England, *BNJ* 77, pp.210-25.

Kelleher, R. 2008, 'Medieval and later coins from near Orford Castle, Suffolk', *BNJ* 78, pp.248-54.
Kelleher, R. 2011, 'Interpreting single finds in medieval England – the secondary lives of coins', in N. Holmes (ed.), *Proceedings of the XIVth International Numismatic Congress Vol. II, Glasgow 2009*, pp.1492-9.
Kelleher, R. 2012, 'The re-use of coins in medieval England and Wales *c.*1050-1550: An introductory survey', in T. Abramson (ed.), *Yorkshire Numismatist* 4, York, pp.183-200.
Kelleher, R. and Leins, I. 2008, 'Roman, Medieval and Later coins from the Vintry, City of London', *NC* 168, pp.167-233.
Kelleher, R. and Williams, G. 2011, 'The Tutbury Hoard', in *Tutbury: 'A Castle Well Built'. Archaeological and historical investigations at Tutbury Castle, Staffordshire.* BAR British Series 546, pp.62-87.
Kemmers, F. and Myrberg, N. 2011, 'Rethinking numismatics: The archaeology of coins', *Archaeological Dialogues* 18 (1), pp.87-108.
Kent, J.P.C. 1974. 'Interpreting coin finds', in J. Casey and R. Reece (eds.), *Coins and the Archaeologist*, BAR British Series 4: Oxford, pp.64-77.
Kent, J.[P.C.] 2005, *Coinage and currency in London from the London and Middlesex records and other sources. From Roman times to the Victorians,* Baldwin: London.
Kilger, C. 2005, 'På jakt efter människorna bakom mynten: Tolkningsmöjligheter inom det numismatiska och historisk-arkeologiska forskningsfältet', *Medeltidsarkeologisk tidskrift* 2005:3, pp.37-52.
Kopytoff, I. 1986, 'The cultural biography of things: commoditization as process', in A. Appadurai (ed.), *The social life of things. Commodities in cultural perspective*, Cambridge University Press: Cambridge, pp.64-91.
Krabath, S. and Lambacher, L. 2006, *Der Pritzwalker Silberfund: Schmuck des späten Mittelalters,* Berlin.
Kunz, G.F. 1913, *The Curious Lore of Precious Stones*. J.B. Lippincott Company: Philadelphia and London.
Lawrence, L.A. 1912, 'The Long Cross coinage of Henry III and Edward I' *BNJ* 9, pp.146-79.
Lawrence, L.A. 1915, 'The Short Cross coinage, 1180-1247', *BNJ* 11, pp.59-100.
Leahy, K. 2006, 'Anglo-Saxon Coin Brooches', in Cook and G. Williams, pp.267-285.
Leins, I.M.R. 2012, *Numismatic data reconsidered: coin distributions and interpretation in studies of late Iron Age Britain*, Unpublished PhD thesis, University of Newcastle.
Leins, I., Marzinzik, S., Sherlock, S. and Simmons, M. 2006, 'Streethouse area, Redcar and Cleveland: Two Anglo-Saxon grave assemblages', *TAR* 2005-6, pp.82-4.
Letters, S. 2012 *Online Gazetteer of Markets and Fairs in England Wales to 1516* (http://www.history.ac.uk/cmh/gaz/gazweb2.html) (Centre for Metropolitan History, Institute of Historical Research: 2012).
Lightbown, R.W. 1992, *Medieval European Jewellery*, Victoria and Albert Museum: London.
Lloyd, T.H. 1991, *England and the German Hanse 1157-1611*, CUP: Cambridge.
Lockyear, K. 2000, 'Site finds in Roman Britain: a comparison of techniques', *Oxford Journal of Archaeology* 19(4), pp.397-423.
Lomax, D.W. 1995, 'Outline to Spanish historical background', in Gerrard, Gutierrez and Vince, pp.13-16.

Mack, R.P. 1966, 'Stephen and the anarchy 1135-1154', *BNJ* 35, pp.38-112.
Marsden, A. 2006, 'East Walton, Norfolk: 2 Medieval silver halfpennies', *TAR,* pp.211.
Marsden, A. 2007, 'Old Buckenham, Norfolk: silver coin-brooch or mount', *PATAR 2007,* no. 263, pp.127.
Marshall, Y. 2008, 'The social lives of lived and inscribed objects: a Lapita perspective', *Journal of the Polynesian Society* 117 (1), pp.59-101.
Mass, J.P. 1993, 'Of dies, design changes and square lettering in the opening phase of the Short Cross coinage', *BNJ* 63, pp.20-52.
Mass, J.P. 2001, *The J.P. Mass Collection of English Short Cross Coins 1180-1247*, *SCBI* 56, British Academy: London.
Mate, M. 1969, 'Coin dies under Edward I and II', *NC* 7th series, 9, pp.207-18.
Mateu y Llopis, F and Dolley, R.H.M. 1952-4, 'A small find of Anglo-Saxon pennies from Roncesvalles', *BNJ* 27, pp.89-91.
Mayhew, N. J. 1977, 'Money in Scotland in the thirteenth century', in D.M. Metcalf (ed.), *Coinage in Medieval Scotland (1100-1600)*, The Second Oxford Symposium on Coinage and Monetary History, BAR 45: Oxford, pp.85-102.
Mayhew, N. 1983, *Sterling Imitations of Edwardian Type*, RNS Special Publication 14: London.
Mayhew, N. 1988, *Coinage in France. From the Dark Ages to Napoleon*, Seaby: London.
Mayhew, N. 1992, 'From regional to central minting, 1158-1464', in Challis (ed), pp.83-178.
Mayhew, N. 2000, 'Modelling medieval monetisation', in R.H. Britnell and B.M.S. Campbell (eds.), *A commercializing economy: England 1086 to c.1300*, Manchester pp. 55-77.
Mayhew, N. 2002, 'Money in the late medieval countryside: Britain', in P. Delogu and S. Sorda (ed.), *La Moneta in Ambiente Rurale Nell'Italia Tardomedioevale,* Rome, pp.5-26.
Medlycott, M. 2000, 'Prehistoric, Roman and post-medieval material from Harlow: Investigations at Church Langley 1989-1994', *Essex Archaeology & History* 31, pp.33-93.
Merrifield, R. 1987, *The Archaeology of Ritual and Magic*, Batsford: London.
Metcalf, D.M. 1957, 'Finds-records of medieval coins from Gough's Camden's Britannia', *NC* 157, pp.181-207.
Metcalf, D.M. 1977a, 'An estimate of the total output of the English mints during the "Cross-and-Crosslets" coinage, 1158-80', in N.J. Mayhew (ed.), *Edwardian Monetary Affairs (1279-1344)*, BAR British Series 36: Oxford, pp.26-31.
Metcalf, D.M. 1977b, 'The evidence of Scottish coins hoards for monetary history, 1100-1600', in D.M. Metcalf (ed.), *Coinage in Medieval Scotland (1100-1600)*, British Archaeological Reports 45: Oxford, pp.1-59.
Metcalf, D.M. 1988, 'Notes on the "PAXS" type of William I', *Yorkshire Numismatist* 1, pp.13-26.
Metcalf, D.M. 1993, 'Coins and jettons, in C. Dallas, *Excavations in Thetford by B.K. Davison between 1964 and 1970,* East Anglian Archaeology Report 62, Norwich, pp.95-6.
Metcalf, D.M. 1993-4, *Thrymsas and Sceattas in the Ashmolean Museum - Anglo-Saxon Gold and Silver Coinage*, in three volumes, Royal Numismatic Society and Ashmolean Museum: London.
Metcalf, D.M. 1995, *Coinage of the Crusades and the Latin East in the Ashmolean Museum Oxford*, 2nd edition, RNS Special Publication No. 28: London.

Metcalf, D.M. 1998, *An atlas of Anglo-Saxon and Norman coin finds, c.973-1086*, RNS Special Publication 32: London.
Metcalf, D.M. 2006, 'Inflows of Anglo-Saxon and German coins into the Northern Lands, *c*.997-1024: Discerning the patterns'. In Cook and Williams, pp.349-88.
Metcalf, D.M. and Archibald, M.M. 1995, 'The Anglo-Saxon coins' in Blockley *et al ,* p.949.
Mikkelsen, E. 1998, 'Islam and Scandinavia during the Viking Age', in E.Piltz (ed.), *Byzantium and Islam in Scandinavia.* Acts of a Symposium at Uppsala University June 15-16 1996, Paul Åströms: Göteborg, pp.39-51.
Miller, P. and Saxby, D. 2007, *The Augustinian priory of St Mary Merton, Surrey. Excavations 1976-90,* MoLAS Monograph 34: London.
Milne, G. 2003, *The Port of Medieval London*. Tempus: Port Stroud.
Mitchiner, M. 1986, *Medieval Pilgrim and Secular Badges*, Hawkins: Sanderstead.
Moesgaard, J.C. 1992, 'Un trésor médiéval à Evreux. La circulation des monnaies de Dreux en Normandie', *Les Dessous des Sous*, Exhibition catalogue: Musee d'Evreux.
Moorhead, S. 2009, 'Early Byzantine copper coins found in Britain. A review in light of new finds recorded with the Portable Antiquities Scheme', in *Ancient History, Numismatics and Epigraphy in the Mediterranean World. Studies in memory of Clemens E. Bosch and Sabahat Atlan and in honour of Nezahat Baydur,* Istanbul, pp.263-74.
Moreland, J. 1999, 'The World(s) of the Cross', *World Archaeology*, Vol. 31, No. 2, The Cultural Biography of Objects (Oct. 1999), pp.194-213.
Murray Jones, P. 2007, 'Amulets: prescriptions and surviving objects from late medieval England', in S. Blick (ed.), *Beyond Pilgrim Souvenirs and Secular Badges: Essays in honour of Brian Spencer*, Oxbow: Oxford: 92-107.
Myrberg, N. 2009, 'The Hoarded Dead. Late Iron Age silver hoards as graves', in *On the Threshold. Burial archaeology in the twenty-first century* (Eds Back-Danielsson, Gustin, Larsson, Myrberg & Thedéen), PAG - postdoctoral Archaeological Group, vol. 1, Stockholm Studies in Archaeology, 47. (Bilingual volume), pp.131-145.
Naylor, J.D. 2005, 'Third-party data for first class research', *Archaeologia e Calcolatori* 16, pp.83-91.
Naylor, J. 2007, 'The Circulation of Early-medieval European Coinage: A Case Study from Yorkshire, c. 650–c. 867', *MedArch* 51, pp.41-61.
Nenk, B. 2004a, 'Broadlands, Hampshire: Medieval silver iconographic finger-ring', *TAR*, p.108.
Nenk, B. 2004b, 'Old Romney, Kent: Medieval silver-gilt iconographic finger-ring', *TAR,* p.108.
Nenk, B. 2004c, 'Langford, Nottinghamshire: Medieval silver annular brooch' *TAR*, pp.98.
Newman, J. 1994, 'A possible medieval fair site at the Albany, Ipswich', *BNJ* 64, p.129.
Nightingale, P. 1982, 'Some London moneyers and reflections on the organization of English mints in the eleventh and twelfth centuries', *NC* 142, pp.34-50.
Nightingale, P. 1985, 'The London Pepperers' Guild and some twelfth century English trading links with Spain', *Bulletin of the Institute of Historical Research* LVIII, pp.123-32.
North, J.J. 1966, 'The Broughton Hoard', *BNJ* 35, pp.120-7.
North, J.J. 1988, 'A re-examination of classes 7 and 8 of the Short Cross coinage', *BNJ* 58, pp.25-39.

North, J.J. 1989, *The J.J. North Collection. Edwardian English silver coins 1279-1351 with some supplementary examples, SCBI* 39: London.
North, J.J. 1991a, *English Hammered Coinage Volume 2.* Spink: London.
North, J.J. 1994, *English Hammered Coinage Volume 1.* Spink: London.
North, J.J. 1995, 'Some imitations and forgeries of the English and Irish Long Cross pence of Henry III', *BNJ* 65, pp.83-119.
Oxford Archaeology. 2002, *The Management of Archaeological Sites in Arable Landscapes (DEFRA project NO: BD1701)*. Available at http:// randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=8412#RelatedDocuments (accessed 20 March 2011).
Page, W. 1914, 'Parishes: Well', A History of the County of York North Riding: Volume 1 (1914), pp.348-355. URL: http://www.british-history.ac.uk/report.aspx?compid=64765 Date accessed: 18 August 2012.
Page, P., Atherton, K. and Hardy, A. 2005, *Barentin's Manor: excavations of the moated manor at Harding's Field, Chalgrove, Oxfordshire 1976-9*, Oxford University School of Archaeology: Oxford.
Palmer, N. and Mayhew, N. 1977, Medieval coins and jettons from Oxford excavations', in N.J. Mayhew (ed.), *Edwardian Monetary Affairs, 1279-1344*, Oxford, pp.81-95.
Palmer, N. and Seaby, W.A. 1983-4, 'An early thirteenth century hoard from Cross on the Hill, near Stratford-upon-Avon', *Transactions of the Birmingham and Warwickshire Archaeological Society,* 93, pp.105-10.
Pestell, T. 2005, 'Using Material Culture to Define Holy Space: the Bromholm Project', in S. Hamilton and A. Spicer, *Defining the Holy: Sacred Space in Medieval and Early Modern Europe*, Ashgate: Aldershot, pp.161-186.
Pirie, E.J.E. 1986, *Post-Roman Coins from York Excavations 1971-81*, The Archaeology of York 18/1, York Archaeological Trust: London.
Platt, C. 1978, *Medieval England: A Social History and Archaeology from the Conquest to 1600,* Routledge.
Platt, C and Coleman-Smith, R. 1975, *Excavations in Medieval Southampton 1953-1959, vol 1, The Finds*: Leicester.
Poole, A.L. 1966, *Domesday Book to Magna Carta*, second edition, Clarendon Press: Oxford.
Potter, K.R. (ed.) 1955, *Historia Novella by William of Malmesbury*, London.
Potter, W.J.W. 1960, 'The silver coinage of Edward III from 1351', *NC* 6th series 20, pp.137-81.
Potter, W.J.W. 1962, 'The silver coinage of Edward III from 1351', *NC* 7th series 2, pp.203-224.
Potter, W.J.W. 1963, 'The gold coinage of Edward III' *NC* 7th series 3, pp.107-28.
Potter, W.J.W. 1964, 'The gold coinage of Edward III' *NC* 7th series 4, pp.305-18.
Purvey, F. 1962, 'The pence, halfpence and farthings of Richard II', *BNJ* 31, pp.88-108.
Rahtz, P. 1971, 'Excavations on Glastonbury Tor, Somerset, 1964-6', The Royal Archaeological Institute, Reprinted from *The Archaeological Journal*, Volume CXXVII.
Redknap, M. 2000, 'A late medieval gold ring from Pencaemawr, near Usk, Monmouthshire', *Archaeology in Wales* 40, pp.50-1.
Reece, R. 1987, *Coinage in Roman Britain*, London.

Reece, R. 1991, *Roman Coins from 140 Sites in Britain*, Cotswold Studies vol. IV: Cirencester.
Rees, H., Crummy, N., Ottaway, PJ. And Dunn, G. 2008, *Artefacts and Society in Roman and Medieval Winchester: Small Finds from the Suburbs and Defences, 1971-1986.* Winchester Museums Service: Winchester.
Reid, T. 1922-3, 'The Lee Penny', *PSAS* 112-9.
Richards, J.D. 1999, 'What's so special about 'productive sites'? Middle Saxon settlements in Northumbria', in T. Dickinson, and D. Griffiths, (eds.), *The Making of Kingdoms*. ASSAH 10, Oxford, pp.71-80.
Richards, J.D., Naylor, J and Holas-Clark, C. 2009, *The Viking and Anglo-Saxon Landscape and Economy (VASLE) Project,* available from the Archaeological Data Service online at: *http://archaeologydataservice.ac.uk/archives/view/vasle_ahrc_2008/index.cfm?CFID=619&CFTOKEN=4A374ED8-A92E-4552-BF0EF4429363E7BA.*
Rigold, S.E. 1949-51, 'The trail of the Easterlings', *BNJ* 26, pp.31-55.
Rigold, S.E. 1969, 'Coins', in Rahtz, P. *Excavations at King John's Hunting Lodge, Writtle, Essex, 1955-57.* Society for Medieval Archaeology Monograph Series: No. 3, London, pp.78-9.
Rigold, S.E. 1975, 'the coins from J.S. Wacher's excavations', in C. Platt and R. Coleman-Smith, *Excavations in Medieval Southampton 1953-1969: Volume 2: the Finds,* Leicester, pp.330-1.
Rigold, S.E. 1977, 'Small change in the light of medieval site finds', in N.J. Mayhew (ed.), *Edwardian Monetary Affairs*, British Archaeological Reports, British series 36: Oxford, pp.59-80.
Rigold, S.E. 1988, 'Coins and jettons from excavations in 1976-78', in D. Sherlock and H. Woods, *St Augustine's Abbey,* Kent Archaeological Society Monograph IV.
Rigold S.E., Pagan, H. and Archibald, M. 1984, 'II: Coins and jettons', in A. Rogerson, *Excavations in Thetford 1948-59 and 1973-80,* East Anglian Archaeology Report 22, pp.66-8.
Rippon, S., Claughton, P and Smart, C. 2009, *Mining in a Medieval Landscape: The Royal Silver Mines of the Tamar Valley*. University of Exeter Press: Exeter.
Robbins, K.J. 2012, *From Past to Present: Understanding the impact of sampling bias on data recorded by the Portable Antiquities Scheme*, Unpublished PhD thesis, University of Southampton.
Roberts, B.K and Wrathmell, S. 2000, *An Atlas of Rural Settlement in England*, EH: London.
Robinson, J.P. 2001, 'Brailes, Warwickshire: Medieval gold finger-ring', *TAR*, p.65.
Robinson, P. 1990, 'Two Medieval Coin-brooches from Wiltshire', *WANHM* 83, pp.208-10.
Robinson, P. 1993, 'Coins, Jetons and Tokens', in A.H. Graham and S.M. Davies, *Excavations in Trowbridge, Wiltshire, 1977 and 1986-1988: The Prehistoric, Saxon and Saxo-Norman Settlements and the Anarchy Period Castle*. Wessex Archaeological Report no. 2, pp.78-9.
Rogers, J.E.T. 1866, *A History of Agriculture and Prices in England, Vol. II 1259-1400*, Clarendon Press: Oxford.
Roslund, M. 1997, 'Crumbs from the rich man's table: Byzantine finds from Lund and Sigtuna c.980-1250', I.H. Andersson, P. Carelli and L. Ersgård, (eds.), *Visions of the Past: Trends and Traditions in Swedish Medieval Archaeology (Lund Studies in Medieval*

Archaeology 19/Riksantikvarieämbetet Arkeologiska Undersökningar Skrifter 24): Lund, pp.239-94.
Ruiz, T. 1976, 'Castilian merchants in England', in W.C. Jordan, B. McNab, and T.F. Ruiz, (eds.), *Order and Innovation in the Middle Ages: Essays in Honour of Joseph R. Strayer*, Princeton, pp.175-6.
Salzmann, L.F. 1913, *English Industries of the Middle Ages*. Constable and Co. Ltd: London.
Saunders, P.R. 1983, 'An inscribed medieval brooch from Amesbury', *WANHM* 76, pp.146-7.
Saville, A. 2008, 'Treasure Trove and metal detecting in Scotland', in S. Thomas, and P.G. Stone (eds.), *Metal Detecting and Archaeology*, Heritage Matters Series Vol. 2, Boydell: Woodbridge, pp.87-98.
Schofield, J. 2007, unpublished paper read to the Society of Antiquaries of London, 17 January 2007.
Schofield, J. and Maloney, C. (eds.), 1998, *Archaeology in the City of London 1907-91: a guide to records of excavations by the Museum of London*, MoLAS: London.
Seaby, W. 1988, 'Henry I coin types: design characteristics and chronology', *Yorkshire Numismatist* 1, pp.27-43.
Seaman, R.J. 1972, 'A further find of coins from Dunwich', *BNJ* 41, pp.27-33.
Seaman, R.J. 1978, 'A re-examination of some hoards containing coins of Stephen', *BNJ* 48, pp.58-72.
Sear, D. 1987, *Byzantine Coins and their values* (second edition). Seaby: London.
Sheail, J. 1972, 'The distribution of taxable population and wealth in England during the early sixteenth century', *Transactions of the Institute of British Geographers* 55, pp. 111-26.
Sherlock & Woods, 1988, St *Augustines Abbey, report on excavations, 1960-7,* Kent Archaeological Society Monograph Series IV: Canterbury.
Shiel, N. 1984, 'V; The numismatic finds', in J.P. Allan, *Medieval and Post-Medieval Finds from Exeter, 1971-80,* Exeter, pp.248-365.
Shiel, N. 2004, 'The coins', in S.R. Blaylock, *The Archaeological Study of a building under repair in Exeter, Devon, 1977-95,* Exeter Archaeological Reports 5, Swindon, p.216.
Simpson, J. 1993, *The Concise Oxford Dictionary of Proverbs*, Oxford and New York.
Spencer, B. 1978, 'King Henry of Windsor and the London Pilgrim', in J. Bird, H. Chapman and J. Clark (eds.), *Collectanea Londiniensia: Studies in London Archaeology and History Presented to Ralph Merrifield*, *LMAS* Special Publication No. 2: London, pp.235-64.
Spencer, B. 1990, *Salisbury and South Wiltshire Museum Medieval Catalogue: Part 2. Pilgrim Souvenirs and Secular Badges*, Salisbury and South Wiltshire Museum: Salisbury.
Spencer, B. 1998, *Pilgrim Souvenirs and Secular Badges: medieval finds from excavations in London: 7*, Stationary Office: London.
Spink, 2003, *Spink's Standard Catalogue of British Coins. Coins of Scotland, Ireland and the Islands,* 2nd edition, London.
Spufford, P. 1963. Continental coins in late medieval England. *BNJ* 32, pp.127-139.
Spufford, P. 1964. Burgundian double patards in late medieval England, *BNJ* 33, pp.110-117.
Spufford, P. 1988, *Money and its use in Medieval Europe*, CUP: Cambridge.

Stahl, A.M. 1999, 'The circulation of medieval Venetian coinages', in L. Travaini (ed.), *Local Coins, Foreign Coins: Italy and Europe 11th-15th centuries,* Proceedings of the Second Cambridge Numismatic Symposium: Milan, pp.87-111.
Stahl, A.M. 2000, *Zecca. The Mint of Venice in the Middle Ages*, John Hopkins University Press: Baltimore and London.
Standley, E. 2010, *Trinkets and Charms: the use, meaning and significance of later medieval and early post-medieval dress accessories,* unpublished PhD thesis, Durham University.
Steane, J. 1984, *The Archaeology of Medieval England and Wales*, Croom Helm.
Steen Jensen, J. 1995, *Danish coins from the 11th century in the Royal Collection of Coins and Medals*, Denmark.
Stenton, F.M. 1971, *Anglo-Saxon England*. Clarendon: Oxford.
Stewart, I. H. 1967, *The Scottish Coinage*. London: Spink.
Stewart, I. 1979, 'English coinage in the later years of King John and the minority of Henry III, part I', *BNJ* 49: 26-41.
Stewart, I. 1981, .English coinage in the later years of King John and the minority of Henry III, part II', *BNJ* 51: 91-106.
Stewart, I. 1992, 'The English and Norman Mints, *c.*600-1158', in Challis (ed):, pp.1-82.
Stewartby. 1995, 'German imitations of English Short-Cross sterlings', *NC* 155: 209-60.
Stewartby. 2001, Short cross imitations, in Mass, J.P. *The J.P. Mass Collection of English Short Cross Coins 1180-1247*. *SCBI* 56: 70-2.
Stewartby. 2009, *English Coins 1180-1551*, Spink: London.
Stopford, J. 1994, 'Some Approaches to the Archaeology of Christian Pilgrimage', *World Archaeology*, Vol. 26, No. 1, Archaeology of Pilgrimage (Jun., 1994): 57-72.
Stott, P. 1991, 'Saxon and Norman Coins from London', in A. Vince (ed.), *Aspects of Saxo-Norman London. Vol. II Finds and Environmental Evidence*, London and Middlesex Archaeological Society: London, pp.279-323.
Stubbs, W. (ed.). 1868-71, *Chronica Rogeri de Houedene*, vol. I, Royal Society.
Suchodolski, S. 1996, 'An absence of mind or magic? A few remarks on the so called small or single coin finds', *Quaderni Ticinesi* 25, pp. 317-27.
Tait, H. (ed.) 1986. *Seven Thousand Years of Jewellery*. London: British Museum Publications.
Thomas, S. and Stone, P.G. (eds.) 2008, *Metal Detecting and Archaeology*, Heritage Matters Series Vol. 2, Boydell: Woodbridge.
Thompson, J.D.A. 1956, *Inventory of British Coin Hoards A.D. 600-1500*, RNS Special Publication No. 1. RNS: London.
Travaini, L. 2004, 'Saints and sinners: coins in medieval Italian graves', *NC* 167, pp.159-181.
Travaini, L. 2009, 'Fragments and Coins: Production and Memory, Economy and Eternity', in *The Fragment. An Incomplete History*, edited by W. Tronzo, Getty Research Institute, Los Angeles, pp.154-173.
Treasure Annual Report. 2001; 2003, 2004; 2005-6; 2007; 2008.
Van Vilsteren, V, 2000. 'Hidden and not intended to be recovered: An alternative approach to hoards of medieval coins', *Jaarboek voor Munt-en Penningkunde* 87, pp.51-63.

Vince, A. G. 1985, 'The Saxon and Medieval Pottery of London: A Review', *MedArch* 29, pp.24-93.
Walton, P.J. 2012, *Rethinking Roman Britain: Coinage and Archaeology*, Moneta: Wetteren.
Wilkinson, D. and McWhirr, A. 1998, *Cirencester Anglo-Saxon Church and Medieval Abbey*, Cotswold Archaeological Trust: Cirencester.
Williams, G. 2001, 'Coin-brooches of Edward the Confessor and William I', *BNJ* 71, pp.60-71.
Williams, G. 2006, 'More late Anglo-Saxon and Norman coin jewellery', *BNJ* 76, pp.337-39.
Williams, G. 2007, 'Ware area, Hertfordshire: gilded silver Anglo-Saxon or Scandinavian coin-pendant', *TAR,* p.116.
Williams, G. 2012, 'Was the last Anglo-Saxon king of England a woman?', *Yorkshire Numismatist* 4, pp.159-70.
Wise, P. 1999, 'The Fillongley Hoard – a medieval coin and jewellery hoard from Warwickshire', *BNJ* 69, pp.201-4.
Withers, P. and Withers, B. 2001, *Farthings and Halfpennies. Edward I and II,* Galata: Llanfyllin.
Withers, P. and Withers, B. 2002, *Halfpennies and Farthings. Edward III and Richard II,* Galata: Llanfyllin.
Withers, P. and Withers, B. 2003, *Halfpennies and Farthings. Henry IV, V and VI,* Galata: Llanfyllin.
Wood, D. (ed.) 2004, *Medieval Money Matters,* Oxbow: Oxford.
Woodfield, C. 2005, *The Church of Our Lady of Mount Carmel and some Conventual Buildings at the Whitefriars, Coventry*, BAR British Series 389.
Woolf, N. 1979, 'The sovereign remedy: Touch-pieces and the King's Evil', *BNJ* 49, pp.99-121.